TOSHIBA

FILE NO. 050-200121

SERVICE MANUAL

PLASMA DISPLAY MONITOR

42WP16A, 42WP16H
42WP16C, 42WP16E
42WP16R, 42WP16B

PRINTED IN JAPAN Dec.,2001 Ⓟ

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Safety Precautions

1.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

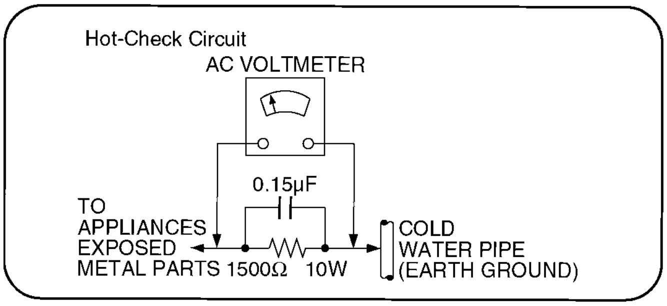


Figure 1

1.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

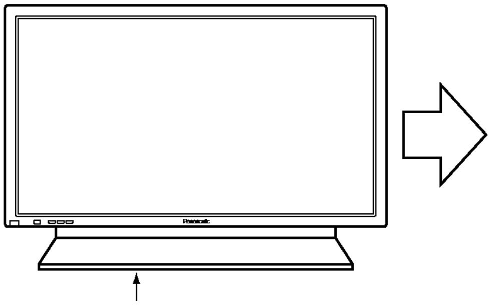
There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3 PCB Structure sheet of GP4D chassis

Board Name	Reference No.		Function
	Except 42WP16C	42WP16C	
D	TZTNP02KNSR	TZTNP01KNSC	Digital process & control
J	TXN/J10JAS		Separator / Audio Out
SS	TNPA2262		Scan out
SC	TNPA2261		Scan out
SU	TNPA2259		Sustain connection (Upper)
SD	TNPA2260		Sustain connection (Lower)
C1	TNPA2253		Data Drive (Upper Left)
C2	TNPA2254		Data Drive (Upper Right)
C3	TNPA2255		Data Drive (Lower Right)
C4	TNPA2256		Data Drive (Lower Left)
H3	TNPA2249		Speaker terminal
S1	TNPA2283		Power switch
SS2	TNPA2263		Sustain connection (Upper)
SS3	TNPA2264		Sustain connection (Lower)
V1	TNPA2282		Front SW. & Remote receiver
F	TXN/F1JASE		Line filter
P1	TXN/P11JASE-N		Power supply
P3	TNPA1777		Drive voltage oscillator
P5	TNPA1778		Primary oscillator
P6	TNPA1779		PFC oscillator
P7	TNPA1780		Drive voltage protection
P8	TNPA1781		Process voltage protection
HX	TZTNP01KNSR		PC_type_Input terminal
HZ	TXNHZ10JJS		RCA type_Input terminal

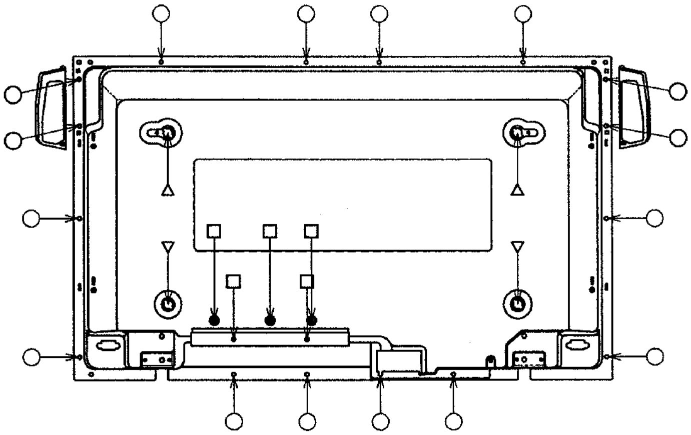
4 Service Hint

Stand the Unit used for Optional Accessory



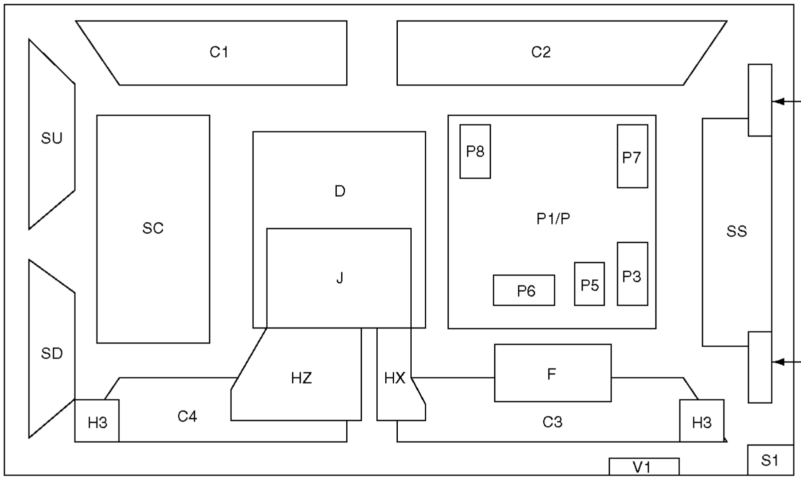
Optional Accessory
(Pedestal)

Remove the Back Cover

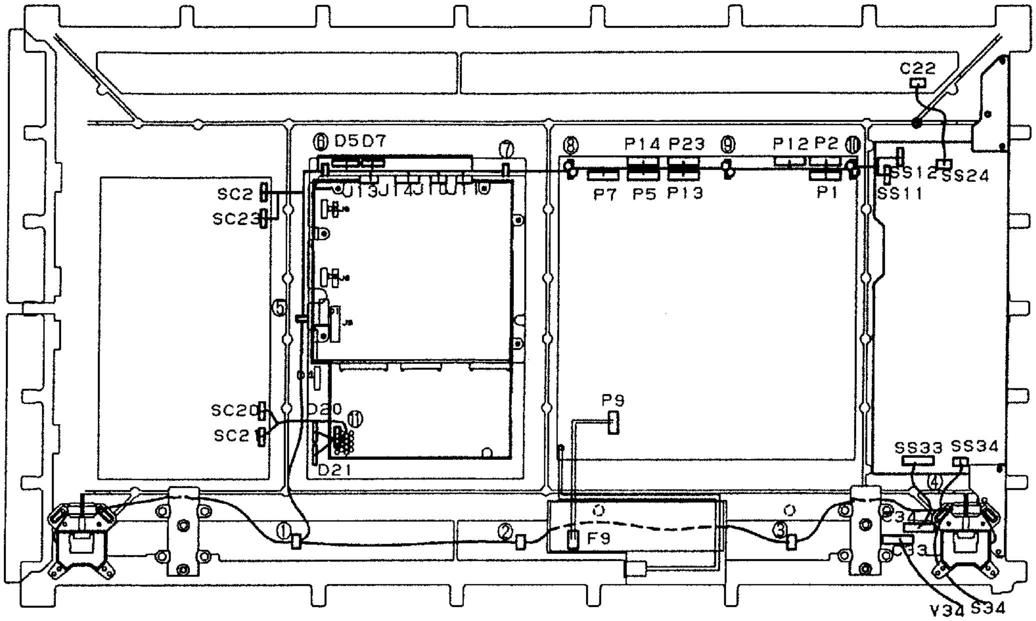


Remove: 4 screws (△) XYN8+F20FZ
5 screws (□) THEL023Z
16 screws (○) XYN4+FL43FZ

Service Position


C1
C2
SU
SC
D
P8
P7
P1/P
SS2
SS
J
P6
P5
P3
SD
HZ
HX
F
SS3
H3
C4
C3
H3
V1
S1

5 Location of Lead Wiring


C22
⑥
D5
D7
⑦
⑧
P14
P23
⑨
P12
P2
⑩
SS12
SS24
SS11
P1
P7
P5
P13
SC2
SC23
J13
J14
J10
J11
⑤
SC20
D20
⑪
SC21
D21
P9
SS33
SS34
④
C34
C33
V34
S34
①
②
F9
③

CON:NO	—	CON:NO	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	○	○	○
SC20	—	D20											○			
SC21	—	D21											○			
P7	—	D7							○	○						
P5	—	D5							○	○						
SS12	—	P12										○				
SS11	—	P1										○				
SC2	—	P2						○	○	○	○					
SC23	—	P23						○	○	○						
J14	—	P14						○	◎	○						
J13	—	P13						○	◎	○						
J10	—	H37 (SC)	○	○	○		○	○								
J11	—	H37 (SS)	○				○	○								
S34	—	SS34				○										
	—															
	—															
	—															
	—															

◎ Wind up second times.

Connector Connection
P9, AC Inlet, J10, J11, C22, C33, C34, SS34,
D5, D7, P5, P7, P2, D20, D21, P23, P12

6 Adjustment Procedure

6.1. +B Set-up

6.1.1. Item / Preparation

1. Input a Grey scale signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Normal

6.1.2. Adjustments

Adjust and confirm indicated test point for the specified voltage.

Adjust

Test point	Voltage	Volume	Name
P4 pin 1 (Hot)	400V ±1V	R426 (P1)	PFC
P1 pin 3	175V ±1V	R625 (P3)	Vsus
P2 pin 3	160V ±1V	R498 (P1)	Vbk
P12 pin 1	67V ±0.5V	R519 (P1)	Vda

Confirm

Test point	Voltage	Volume	Name
P23 pin 2	15V ±0.5V		+15V
P5 pin 1	13.2 ±0.5V		+13V
P13 pin 1	13.5V ±0.5V		Audio 15V
P13 pin 3	-13.5V ±0.5V		Audio -15V
P5 pin 5	5.1V ±0.3V		5V
P7 pin4	5.0 ±0.3V		STB5V (1)
P14 pin 8	5.0V ±0.3V		STB5V (2)
P10 pin 1	17.0V ±0.5V		FAN +B
P10 pin 4	5.1V ±0.3V		FAN 5V

6.2. Driver Set-up

6.2.1. Item / Preparation

1. Input an APL 100 % white signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

   Aspect: 16:9

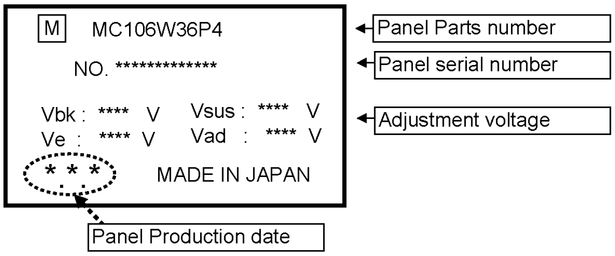
6.2.2. Adjustments

Adjust driver section voltages referring the panel data on the panel data label.

Test point	Voltage	Volume	Name
TPVSUS (SS-BOARD)	Vsus ±1V*	R625 (P3)	Vsus
TPVBK (SC-BOARD)	Vbk ±1V*	R498 (P1)	Vbk
TPVE (SS-BOARD)	Ve ± 1V*	R6774 (SS)	Ve
TPVSET (SC-BOARD)	218 V ±6V	---	Vset
TPVAD (SC-BOARD)	Vad ±1V*	R6477 (SC)	Vad
TPVDA (SC-BOARD)	67V±1V	R519 (P1)	Vda

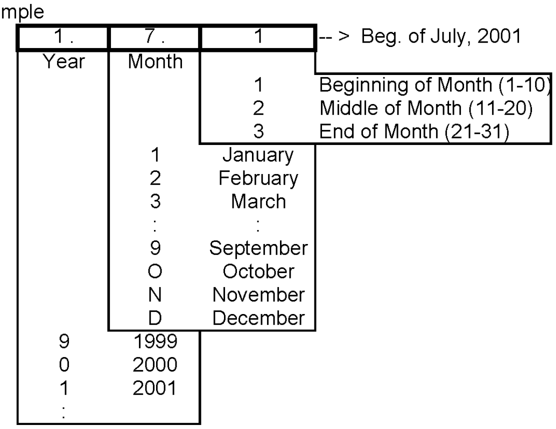
*See the Panel label.

Panel Label information


M
MC106W36P4
NO. **************
Vbk : **** V
Ve : **** V
Vsus : **** V
Vad : **** V
* * *
MADE IN JAPAN
Panel Parts number
Panel serial number
Adjustment voltage
Panel Production date

Panel Production date

For Example


1 .
7 .
1
-- > Beg. of July, 2001
Year
Month
1 Beginning of Month (1-10)
2 Middle of Month (11-20)
3 End of Month (21-31)
1 January
2 February
3 March
: :
9 September
O October
N November
D December
9 1999
0 2000
1 2001
:

6.3. Initialization Pulse Adjust

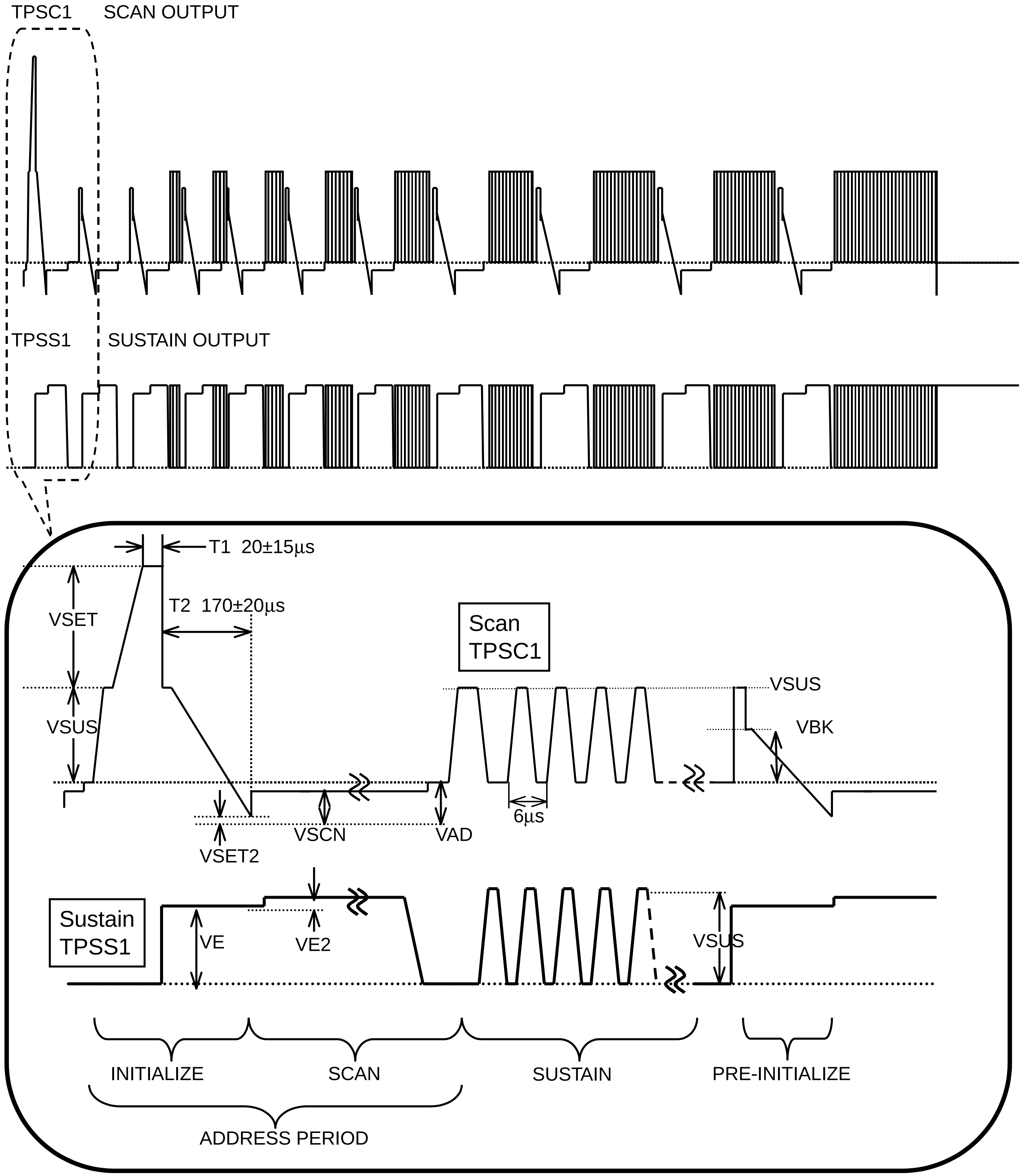
1. Input a Cross hatch signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

Adjust the indicated test point for the specified wave form.

	Test point	Volume	Level
T1	TPSC1 (SC)	R6523 (SC)	20 ± 15μ Sec
T2	TPSC1 (SC)	R6557 (SC)	170 ± 20μ Sec



TPSC1
SCAN OUTPUT
TPSS1
SUSTAIN OUTPUT
T1 20±15µs
T2 170±20µs
VSET
VSUS
Scan
TPSC1
VSUS
VBK
VSET2
VSCN
VAD
6µs
Sustain
TPSS1
VE
VE2
VSUS
INITIALIZE
SCAN
SUSTAIN
PRE-INITIALIZE
ADDRESS PERIOD

6.4. P.C.B. (Printed Circuit Board) exchange

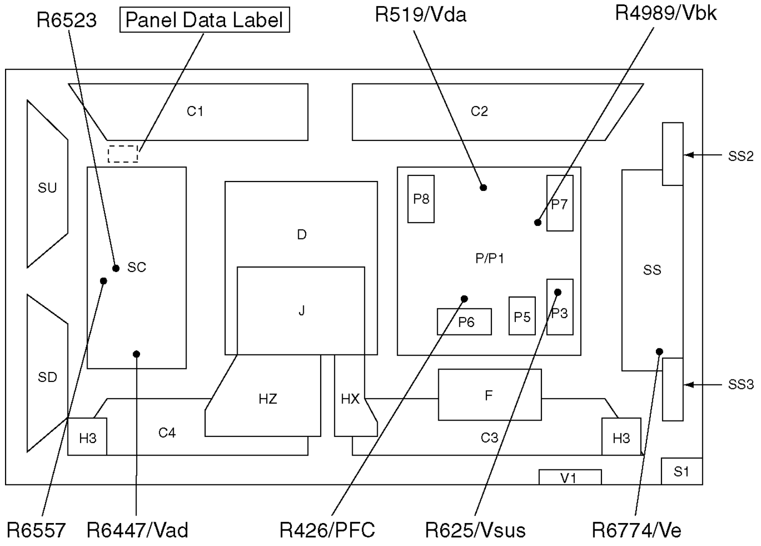
6.4.1. Caution

1. To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.

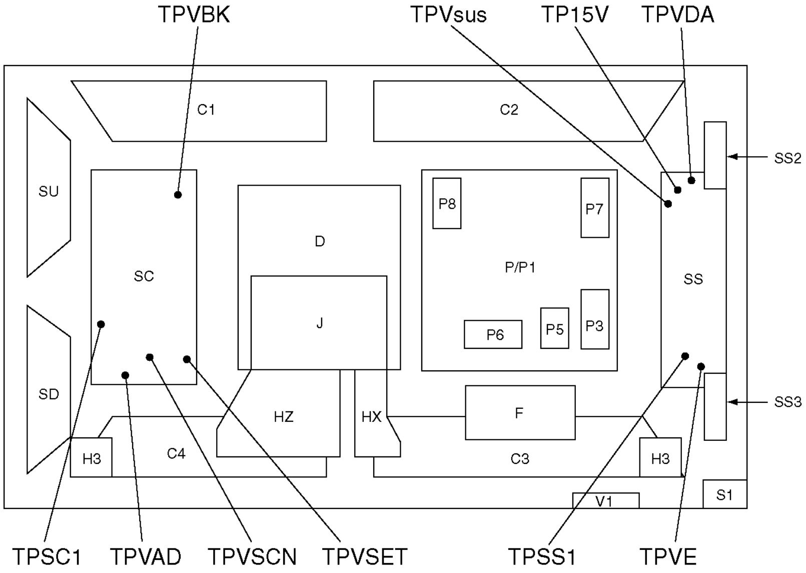
6.4.2. Quick adjustment after P.C.B. exchange

P.C.B.	Item	Volume	Test point	Level
P board	PFC	R426 (3)	P4 connector pin 1	400V ± 1 V
	Vsus	R625 (P3)	TPVsus (SS)	175V ± 1 V
	Vbk	R498 (P1)	TPVBK (SC)	160V ± 5 V
	Vda	R519 (P1)	TPVDA (SS)	67V ± 1 V
SC board	Vad	R6477	TPVAD (SC)	-90 ± 1 V
SS board	Ve	R6774	TPVE (SS)	150 ± 1 V
D board	White balance, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625I signals.			

6.5. Adjustment Volume Location


R6523
Panel Data Label
R519/Vda
R4989/Vbk
C1
C2
SS2
SU
SC
D
P8
P7
P/P1
SS
J
P6
P5
P3
SD
HZ
HX
F
SS3
H3
C4
C3
H3
V1
S1
R6557
R6447/Vad
R426/PFC
R625/Vsus
R6774/Ve

6.6. Test Point Location


TPVBK
TPVsus
TP15V
TPVDA
C1
C2
SS2
SU
SC
D
P8
P7
P/P1
SS
J
P6
P5
P3
SD
HZ
HX
F
SS3
H3
C4
C3
H3
V1
S1
TPSC1
TPVAD
TPVSCN
TPVSET
TPSS1
TPVE

7 Serviceman mode

7.1. CAT (computer Aided Test) mode

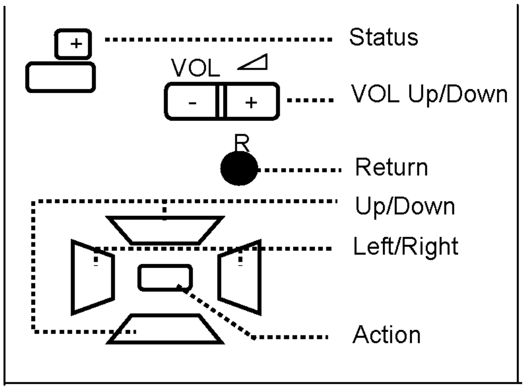
CAT mode menu

CAT Panel sys8.1

IIC Mode
CD Mode
SD Mode
ID Mode

Mode	Function	Access button
IIC	Service Alignment	Action
CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD(Status Display)	MTBF parameter	Action
ID	Not use	-----

Remote control



How to access the CAT mode.

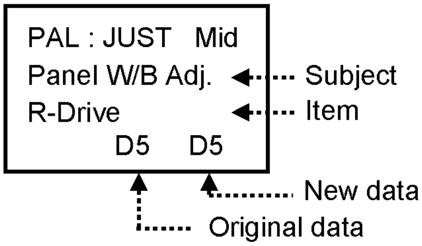
Press and the hold the Volume down / - buton on the front panel of the unit and press the status button on the remote control 3 times quickly within 1 second, this will place the unit into the CAT menu.

To exit the **CAT mode**, access the **ID mode** and switch off the main power.

7.1.1. IIC mode

Select the IIC mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Action button** on the remote control.

OSD



How to use the IIC mode.

1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2 .Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

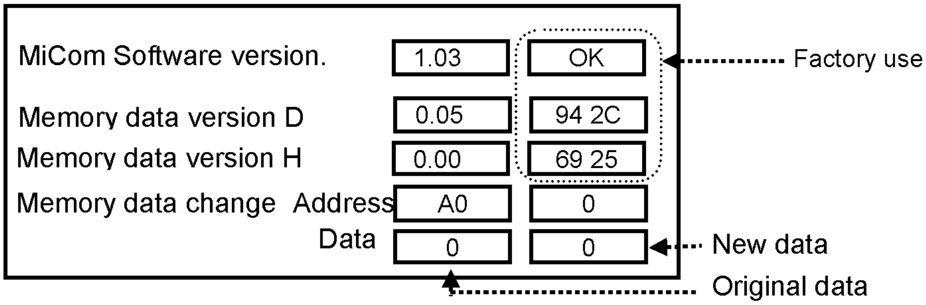
Subject and item are mentioned on page 14.

To exit the IIC mode, press the **R button** on the remote control.

7.1.2. CD mode

Select the CD mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Mute button** on the remote control more than 5 sec.

OSD

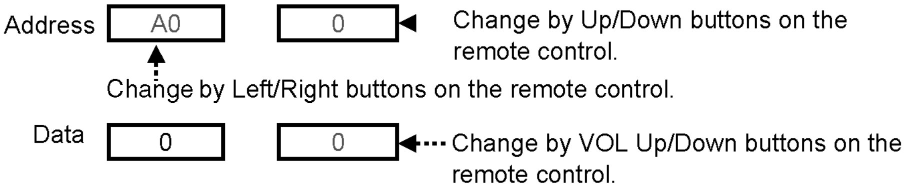

MiCom Software version.
1.03
OK
Factory use
Memory data version D
0.05
94 2C
Memory data version H
0.00
69 25
Memory data change Address
A0
0
Data
0
0
New data
Original data

Micom software version (IC9705 / TVRJ562), this version can be upgrade by replacing with new version IC.

Memory data version D (IC9706 /TVRJ601) in the D board

Version	Model	Type	Destination
10.**	42WP16R/H/A/E/B	Consumer	Euro, H.K, U.K, Australia
11.**	42WP16C	Consumer	China

Memory data change


Address
A0
0
Change by Up/Down buttons on the remote control.
Change by Left/Right buttons on the remote control.
Data
0
0
Change by VOL Up/Down buttons on the remote control.

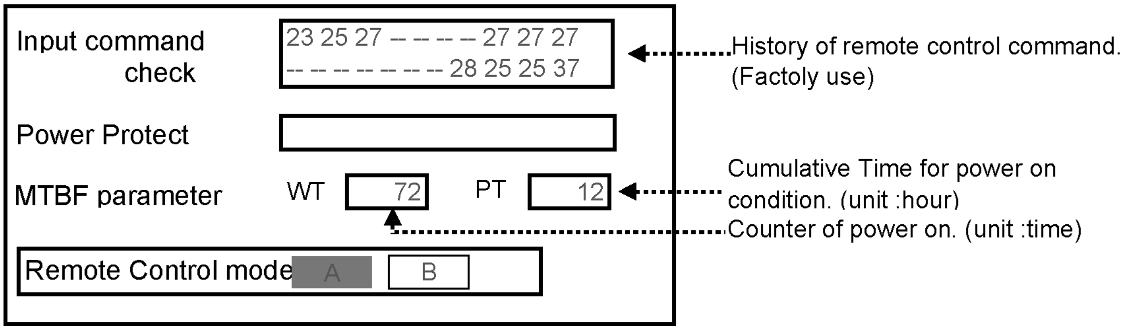
The data is memorized when switch off the main power.

To exit the CD mode, press the **R button** on the remote control.

7.1.3. SD mode

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.

OSD



Input command check: 23 25 27 -- -- -- -- 27 27 27 / -- -- -- -- -- -- -- 28 25 25 37

Power Protect

MTBF parameter WT 72 PT 12

Remote Control mode A B

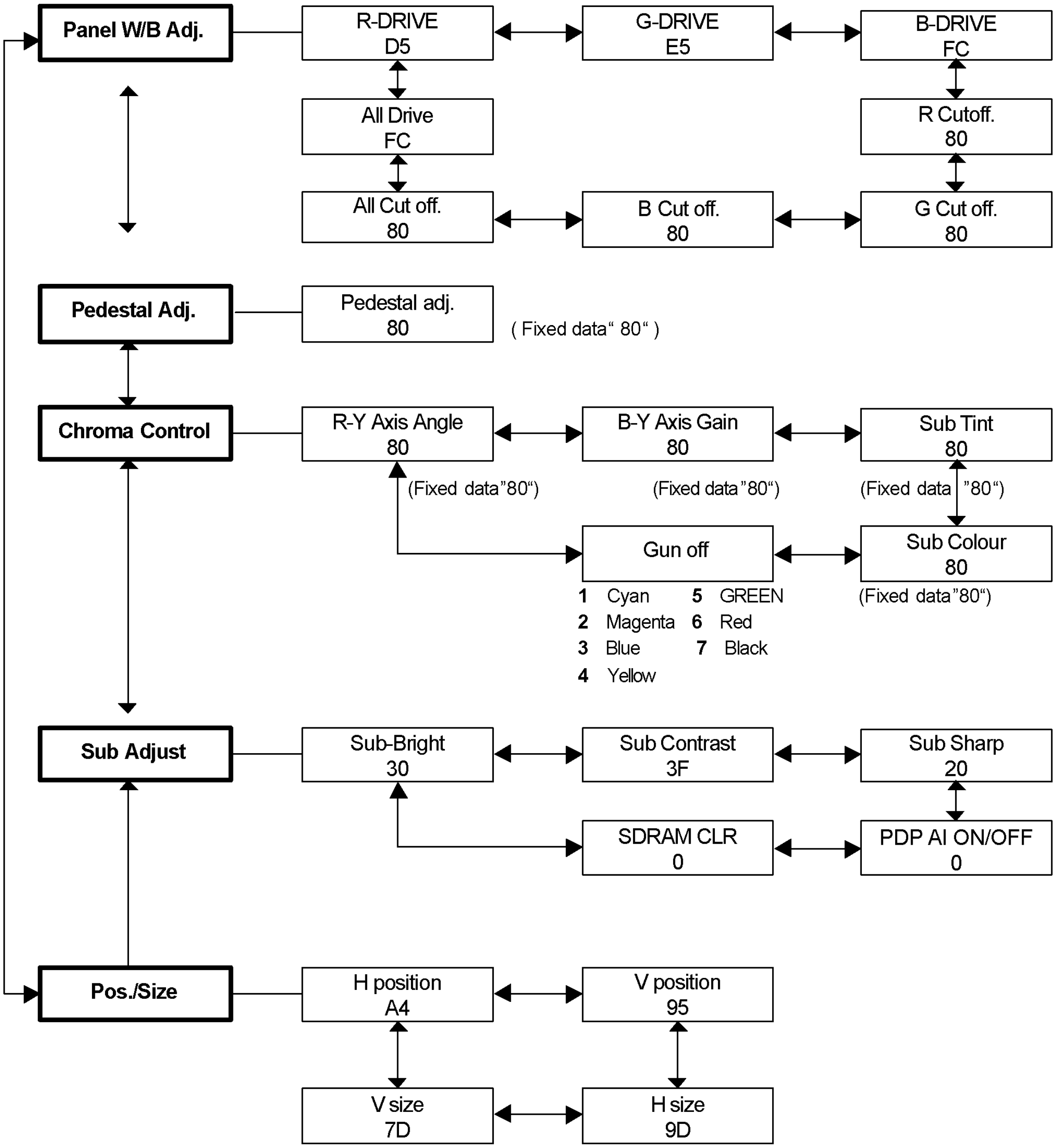
History of remote control command. (Factoly use)

Cumulative Time for power on condition. (unit :hour)

Counter of power on. (unit :time)

To exit the SD mode, press the **R button** on the remote control.

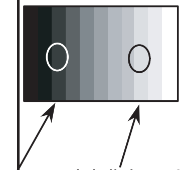
7.2. IIC mode structure (following items value is sample data.)



Panel W/B Adj.
R-DRIVE D5
G-DRIVE E5
B-DRIVE FC
All Drive FC
R Cutoff. 80
All Cut off. 80
B Cut off. 80
G Cut off. 80
Pedestal Adj.
Pedestal adj. 80
(Fixed data“ 80“)
Chroma Control
R-Y Axis Angle 80
B-Y Axis Gain 80
Sub Tint 80
(Fixed data”80“)
(Fixed data”80“)
(Fixed data ”80“)
Gun off
Sub Colour 80
1 Cyan
2 Magenta
3 Blue
4 Yellow
5 GREEN
6 Red
7 Black
(Fixed data”80“)
Sub Adjust
Sub-Bright 30
Sub Contrast 3F
Sub Sharp 20
SDRAM CLR 0
PDP AI ON/OFF 0
Pos./Size
H position A4
V position 95
V size 7D
H size 9D

8 Alignment

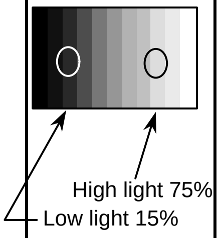
8.1. NTSC panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	NTSC Gray Scale Pattern  High light 75% Low light 15%	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright	1) Find the nearest area to brightness of 10 cd/m^2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m^2 exactly.
				PANEL W/B G cut off	3) Set G cut off to " 80 ".
				PANEL W/B B cut off R cut off	4) Adjust B and R cut off to set color temperature as shown Fig.-01.
				Sub Adjust Sub Bright	5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m^2.
					6)Find 75% of white area by color sensor.
				PANEL W/B G Drive	7) Set G Drive to " D8 ".
				PANEL W/B B Drive R Drive	8) Adjust B and R Drive to set color temperature as shown Fig.-01.
					9) Repeat item 4) to 7) to set both Low light and high light.
				PANEL W/B R,G,B Drive R,G,B Drive	10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC".
				PANEL W/B R,G,B cut off	11) Re-adjust Low light level again.
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.272	0.290
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

Fig. -01

8.2. PAL/SECAM panel white balance

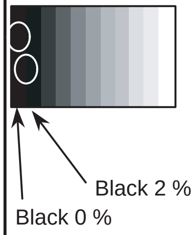
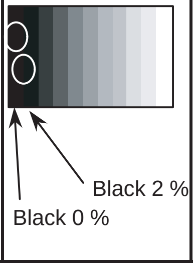
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PAL Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m^2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m^2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-02. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m^2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-02. 9) Repeat procedure 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.272	0.290
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

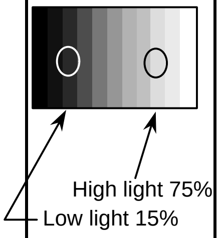
Fig. -02

<table>
<tr><th></th><th></th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>5</td><td></td><td></td><td>Picture:
Normal
Aspect:
16:9
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.
<table>
<tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr>
<tr><td>R Drive</td><td></td><td></td><td></td></tr>
<tr><td>G Drive</td><td></td><td></td><td></td></tr>
<tr><td>B Drive</td><td></td><td></td><td></td></tr>
<tr><td>R Cut off</td><td></td><td></td><td></td></tr>
<tr><td>G Cut off</td><td></td><td></td><td></td></tr>
<tr><td>B Cut off</td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td></td><td>SECAM signal</td><td></td><td></td><td></td><td>2) Input SECAM signal.
3) Copy PAL R,G,B drive and cut off data of each white balance mode to SECAM position.</td></tr>
</table>

8.3. Pedestal setting

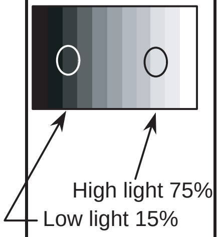
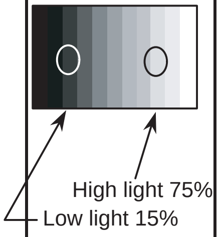
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern 		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R cut off G cut off B cut off	** Adjust at the dark room. 1) Set R,G and B cut off to " **80** ".
				Chroma Control: Gun off	2) Set Gun off to "**5**". (Only green pixels can emit.)
				RGB Sub Adjust: G Sub Bright	3) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area.
				Chroma Control: Gun off	4) Set Gun off to "**3**". (Only blue pixels can emit.)
				RGB Sub Adjust: B Sub Bright	5) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area.
				Chroma Control: Gun off	6) Set Gun off to "**6**". (Only red pixels can emit.)
				RGB Sub Adjust: R Sub Bright	7) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	RGB(PC) Gray Scale Pattern 		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to RGB signal. 2) Repeat procedure 1) to 7) of Component input signal.

8.4. PC/RGB panel white balance

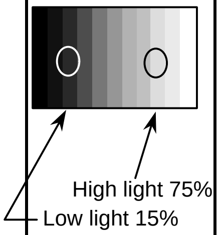
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PC Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m^2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m^2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-03. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m^2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-03. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.272	0.290
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

Fig. -03

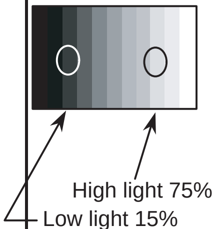
<table>
<tr><th></th><th>INPUT</th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>5</td><td>RGB
Gray Scale
Pattern

</td><td></td><td>Picture:
Normal
Aspect:
16:9
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.
<table>
<tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr>
<tr><td>R Drive</td><td></td><td></td><td></td></tr>
<tr><td>G Drive</td><td></td><td></td><td></td></tr>
<tr><td>B Drive</td><td></td><td></td><td></td></tr>
<tr><td>R Cut off</td><td></td><td></td><td></td></tr>
<tr><td>G Cut off</td><td></td><td></td><td></td></tr>
<tr><td>B Cut off</td><td></td><td></td><td></td></tr>
</table>
2) Input RGB signal.
3) Copy PC R,G,B drive and cut off data of each white balance mode to RGB position.</td></tr>
<tr><td>6</td><td>DVI
Gray Scale
Pattern

</td><td></td><td>Picture:
Normal
Aspect:
16:9
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.
<table>
<tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr>
<tr><td>R Drive</td><td></td><td></td><td></td></tr>
<tr><td>G Drive</td><td></td><td></td><td></td></tr>
<tr><td>B Drive</td><td></td><td></td><td></td></tr>
<tr><td>R Cut off</td><td></td><td></td><td></td></tr>
<tr><td>G Cut off</td><td></td><td></td><td></td></tr>
<tr><td>B Cut off</td><td></td><td></td><td></td></tr>
</table>
2) Input DVI signal.
3) Copy PC R,G,B drive and cut off data of each white balance mode to DVI position.</td></tr>
</table>

8.5. HD/ 525i /525p panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	HD (720i or 1080i) Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m$_2$ as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m$_2$ exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-04. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m$_2$. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-04. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.272	0.290
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

Fig. -04

<table>
<tr><th></th><th>INPUT</th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr>
<td>5</td>
<td>RGB
Gray Scale
Pattern
 </td>
<td></td>
<td>Picture:
Normal
Aspect:
16:9

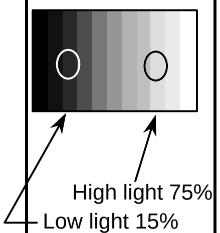
White balance:
Cool
Normal
Warm</td>
<td></td>
<td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.

<table>
<tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr>
<tr><td>R Drive</td><td></td><td></td><td></td></tr>
<tr><td>G Drive</td><td></td><td></td><td></td></tr>
<tr><td>B Drive</td><td></td><td></td><td></td></tr>
<tr><td>R Cut off</td><td></td><td></td><td></td></tr>
<tr><td>G Cut off</td><td></td><td></td><td></td></tr>
<tr><td>B Cut off</td><td></td><td></td><td></td></tr>
</table>

2)Change input signal to 525i and 525p.

3) Copy HD drive and cut off data of each white balance mode to each signals position.</td>
</tr>
</table>

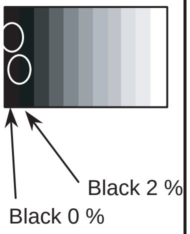
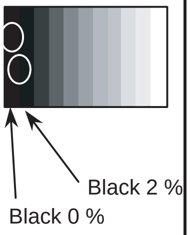
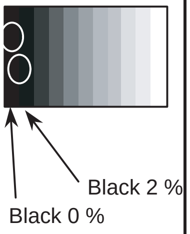
8.6. 625i panel balance

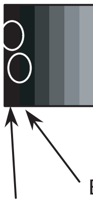
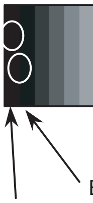
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	625i Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m$_2$ as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m$_2$ exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-05. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m$_2$. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-05. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.272	0.290
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

Fig. -05

8.7. Sub brighness setting

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	NTSC Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to **Cool**. 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to **Nornal**. 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to **warm**. 7) Adjust All cut off to set same data of Cool mode.
2	PAL Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to **Cool**. 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to **Nornal**. 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to **warm**. 7) Adjust All cut off to set same data of Cool mode.
	SECAM Gray Scale Pattern				8) Change to SECAM signal. 9) Copy PAL All cut off data to SECAM mode.
3	PC Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to **Cool**. 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to **Nornal**. 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to **warm**. 7) Adjust All cut off to set same data of Cool mode.
	RGB Gray Scale Pattern				8) Change to RGB input signal. 9) Copy PC All cut off data to RGB mode.
	DVI Gray Scale Pattern				10) Change to DVI input signal. 11) Copy PC All cut off data to DVI mode.

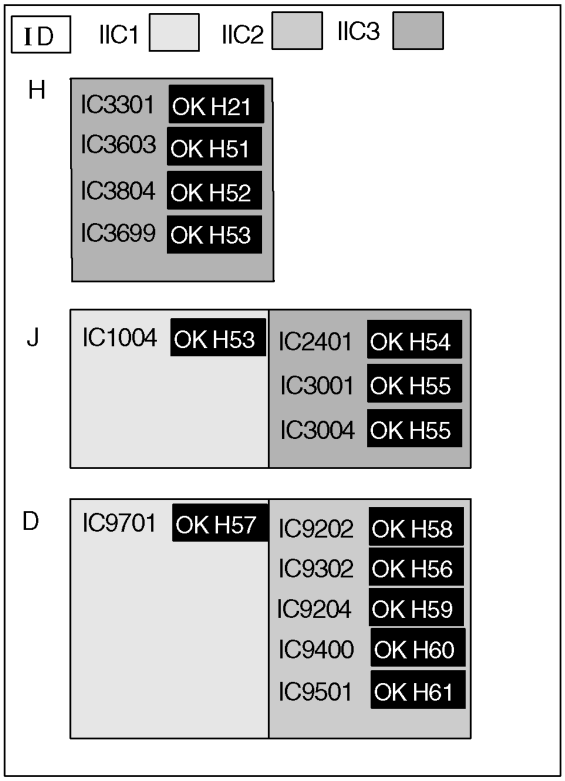
	INPUT	Equipment	Setting	Alignment menu	Procedure
4	525i Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to **Cool**. 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to **Nornal**. 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to **warm**. 7) Adjust All cut off to set same data of Cool mode.
	525p Gray Scale Pattern				8) Change to 525p signal. 9) Copy 525i All cut off data to 525p mode.
	HD (720i or 1080i) Gray Scale Pattern				8) Change to HD signal. 9) Copy 525i All cut off data to HD mode.
5	625i Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to **Cool**. 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to **Nornal**. 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to **warm**. 7) Adjust All cut off to set same data of Cool mode.

9 Trouble shooting guide

9.1. Self Check

9.1.1. Display Indication

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.
2. To get into the Self-check mode press the **volume down** button on the customer controls at the front of the set, at the same time pressing the **OFF-TIMER** button on the remote control, and the screen will show :-



ID IIC1 IIC2 IIC3

H
IC3301 OK H21
IC3603 OK H51
IC3804 OK H52
IC3699 OK H53

J
IC1004 OK H53
IC2401 OK H54
IC3001 OK H55
IC3004 OK H55

D
IC9701 OK H57
IC9202 OK H58
IC9302 OK H56
IC9204 OK H59
IC9400 OK H60
IC9501 OK H61

If the CCU ports have been checked and found to be incorrect

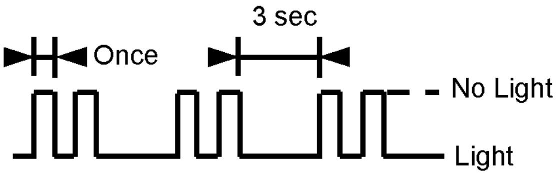
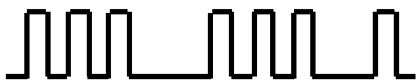
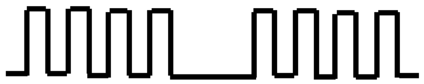
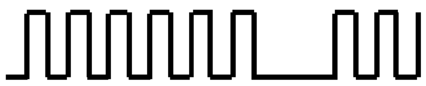
Or not located then " - - " will appear in place of " OK "

Note:

In case of disconnected of HZ “IC3699 - -” is displayed.

9.1.2. Power LED Flashing timing chart

When an abnormality has occurred the unit, the protection circuit operates and cuts the power supply. At this time, the defective part can be identified by the number of flashes of the Power LED at the front of the unit.

Flashing times	Flashing timing	Contents & Check point
Twice		Driver LSI (in SS, SC, C board) has trouble.
Three		+3.3 V voltage drop
Four		+5 V voltage drop
Six		Fan circuit / Fan stop disconects the P10 to P13.

Above Fan function is operated during the fan is set.

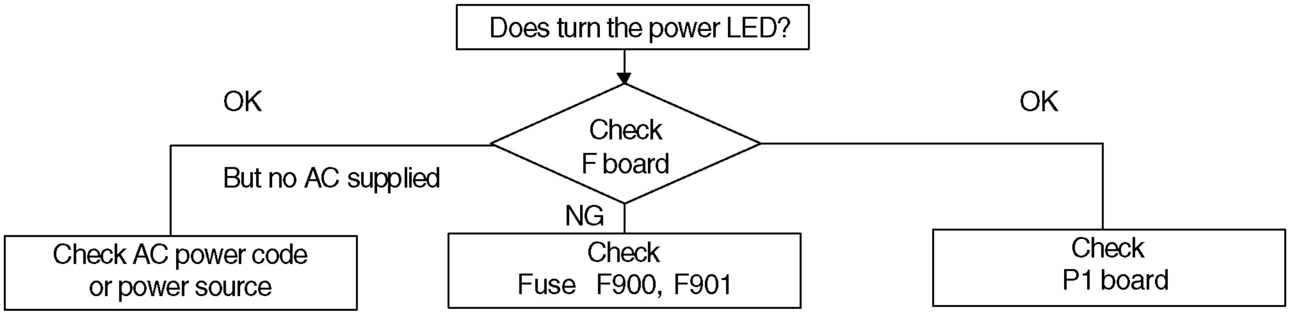
9.2. No Power

First check point

There are following 3 states of No Power indication by power LED.

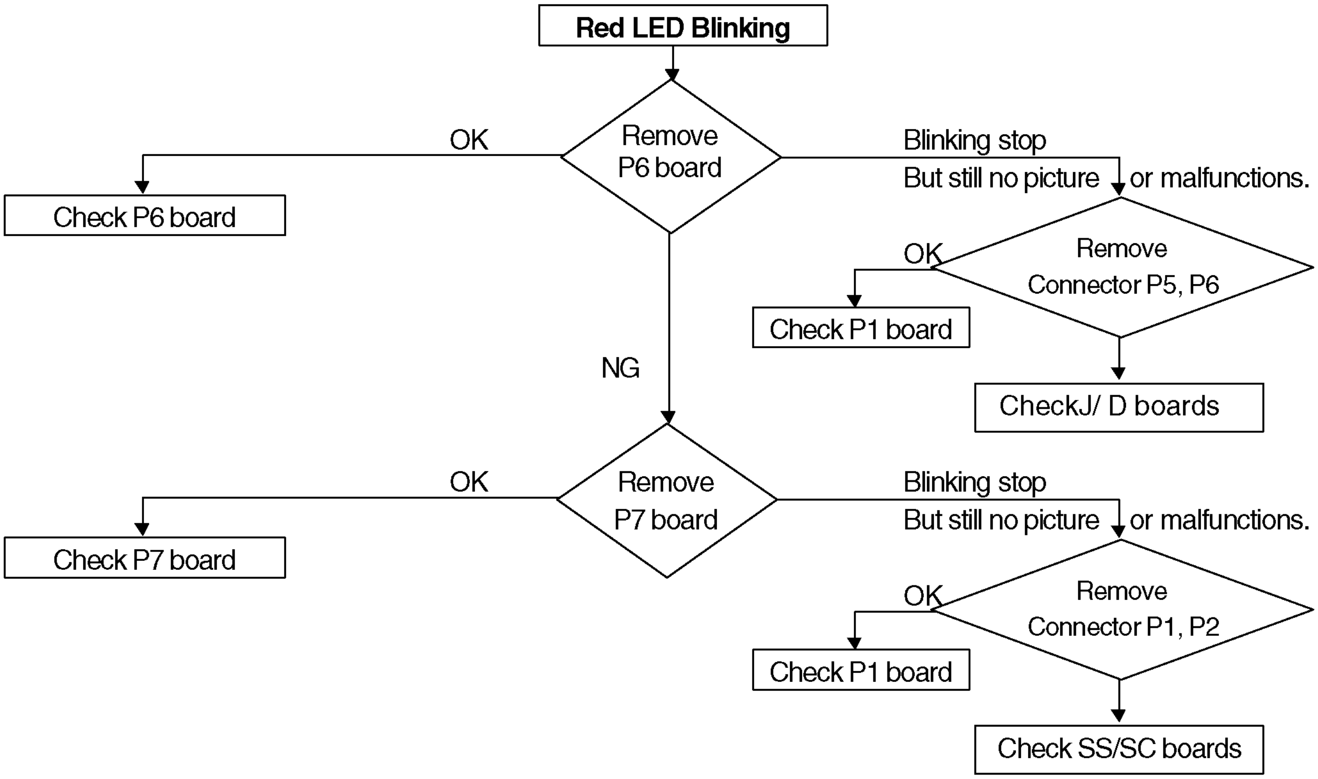
1. No lit
2. Green is lit then turns red blinking a few seconds later.
3. Only red is lit.

1. No lit

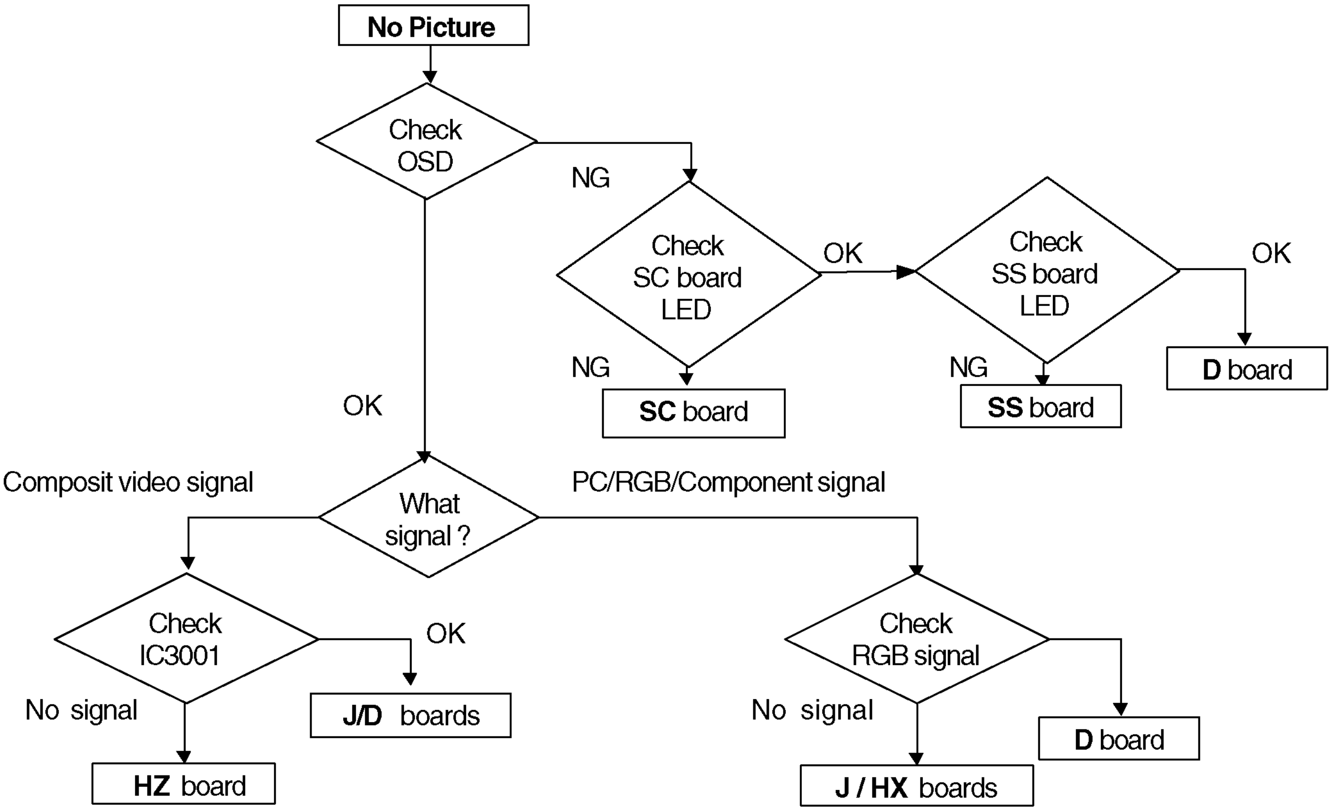

Does turn the power LED?
OK
OK
Check
F board
But no AC supplied
NG
Check AC power code
or power source
Check
Fuse F900, F901
Check
P1 board

2. Red LED Blinking

When one or some of supply voltages from power supply circuit are declined red LED will be blinking as power

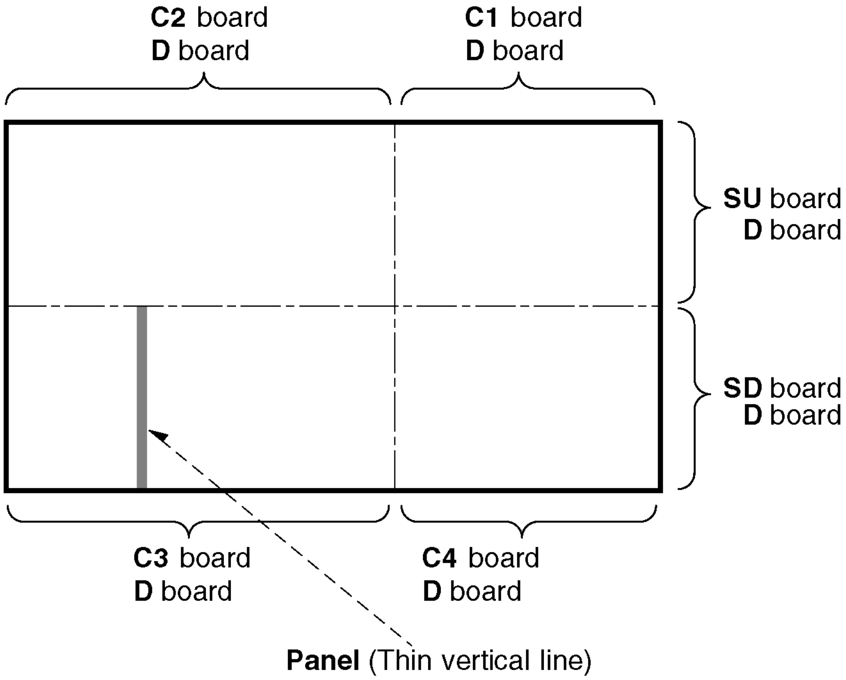

Red LED Blinking
OK
Remove
P6 board
Blinking stop
But still no picture or malfunctions.
Check P6 board
OK
Remove
Connector P5, P6
Check P1 board
NG
CheckJ/ D boards
OK
Remove
P7 board
Blinking stop
But still no picture or malfunctions.
Check P7 board
OK
Remove
Connector P1, P2
Check P1 board
Check SS/SC boards

9.3. No Picture


No Picture
Check OSD
NG
Check SC board LED
OK
Check SS board LED
OK
D board
NG
SC board
NG
SS board
OK
Composit video signal
What signal ?
PC/RGB/Component signal
Check IC3001
OK
J/D boards
No signal
HZ board
Check RGB signal
No signal
D board
J / HX boards

9.4. Local screen failure

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.


C2 board
D board
C1 board
D board
SU board
D board
SD board
D board
C3 board
D board
C4 board
D board
Panel (Thin vertical line)

<Local screen failure chart>

Fig - 1

9.5. D-Board

9.5.1. OUTLINE

D board is consists of Analogue and Digital signal process, Discharge control and Micro control block.

D-board is operated by supply voltages of 3.3V, 5V, 13,5V and Standby 5V , RGB analogue (0.7Vp-p) and Sync. Signal.

D-board output parallel data video signal with control signal for the data driver circuit, Discharge control signal for Scan and Sustain drive circuits and Micro control signals.

9.5.2. MAIN IC OPERATION

IC9007 ~ 9009 A/D Converter

RGB analogue signals are converted to 8 bits digital signal.

IC9204 FORMAT CONVERTER (LSI33)

Number of Horizontal line of input signals are converted to 480 lines.

This IC uses two clock lines, one is 15M 55MHz for input signal (ICK) and other one is 25M to 40MHz for out put signal. (OCK)

IC9400 PLASMA AI (LSI27)

At first input 8 bit signal data is memorized into two field memory (IC9402, IC9403), Plasma AI analyze APL level and distribution of dark and bright components.

Plasma AI re-arrange 8 bit signal data to 12 bit signal data.

This IC also insert OSD (On-Screen Display signal) from Micro.

IC9501 SUB FIELD PROCESSOR

R,G and B 12 bit signal data is layout to fit with each electrodes of panel.

One field signal data is separated to upper 240 lines and lower 240 lines.

Both upper and lower signals are again separated odd and even number line and output.

9.5.3. DIAGNOSTIC

(1) General

Depend on the phenomenon possible defective section from Signal processing, Discharge control or Micro control section on D-board can be diagnosed as follows.

1. Signal Processing section
   a. No picture but panel has discharge.
   b. Missing R, G or B signal
   c. Dark Picture.
   d. No OSD signal.
   e. Vertical band noise appeared.
   f. No picture or distortion on 1/4 area on the screen.
2. Micro control section
   a. Does not turn on power.
   b. No panel discharge.
3. Discharge control section
   a. No discharge but Micro control is operated.
   b. Dark picture

(2) First Check Point

Confirm that follow signals are input to D board.

Power Supply

Connector	Pin	Function	Connector	Pin	Function
D5	1	13.5 V DC	D6	1	STB 5 V DC
	3	5.0 V DC		2	3.3 V DC
	-	-		3	3.3 V DC

Input Signal

Connector	Function		Pin	Function
D8-12	Analogue Green signal	D9	37	HD (Horizontal Drive pulse)
D8-13	Analogue Blue signal		29	VD (Vertical Drive pulse)
D8-14	Analogue Red signal		34	CLP (Clamp pulse)

(3) Trouble shooting

1. **No Power ON** (No power LED turn ON)

Check **IC9701**	**VDD**	5 V	Pin 8, 21,37, 56, 79, 91,97, 126, 138
	RESET	5 V	Pin 35
	CLOCK	20 MHz	Pin 38

Check **IC9702 (VRAM) , IC9705 (FLASH), IC9706(EEPROM)**

Confirm each pin of hose have some pulses.

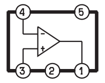
⇩

Example: **IC9702** Trouble → Re-load correct software if possible.

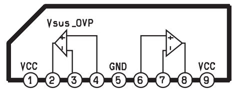
→ Change IC9702.

10 IC Block Diagram

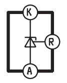
AD8055ART



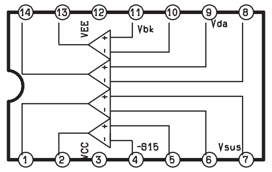
AN6913-NT


Vsus_OVP
VCC
GND
VCC
1 2 3 4 5 6 7 8 9

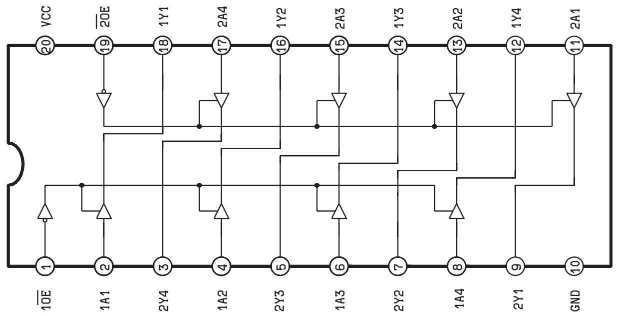
AN1431M



AN6912

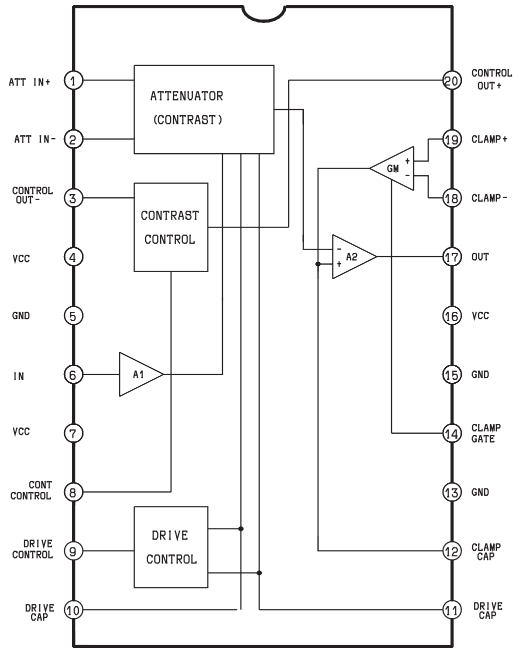

14 13 12 11 10 9 8
VEE
Vbk
Vda
VCC
-815
Vsus
1 2 3 4 5 6 7

C0JBAZ000005
C0JBAZ000448

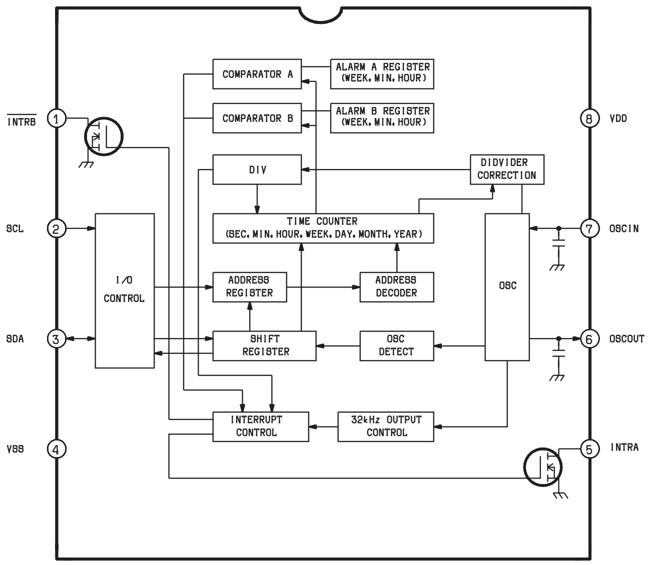

VCC
2OE
1Y1
2A4
1Y2
2A3
1Y3
2A2
1Y4
2A1
20 19 18 17 16 15 14 13 12 11
1 2 3 4 5 6 7 8 9 10
1OE
1A1
2Y4
1A2
2Y3
1A3
2Y2
1A4
2Y1
GND

INPUTS		OUTPUTS
$\overline{OE}$	An	
L	L	L
L	H	H
H	X	Z

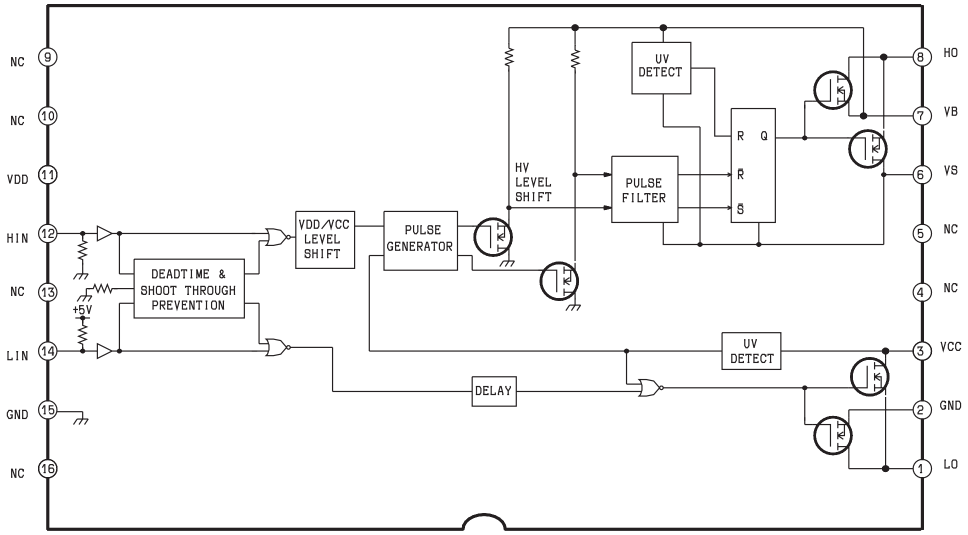
C0ABZA000031


ATT IN+
ATT IN-
CONTROL OUT-
VCC
GND
IN
VCC
CONT CONTROL
DRIVE CONTROL
DRIVE CAP
ATTENUATOR (CONTRAST)
CONTRAST CONTROL
A1
DRIVE CONTROL
GM
A2
CONTROL OUT+
CLAMP+
CLAMP-
OUT
VCC
GND
CLAMP GATE
GND
CLAMP CAP
DRIVE CAP

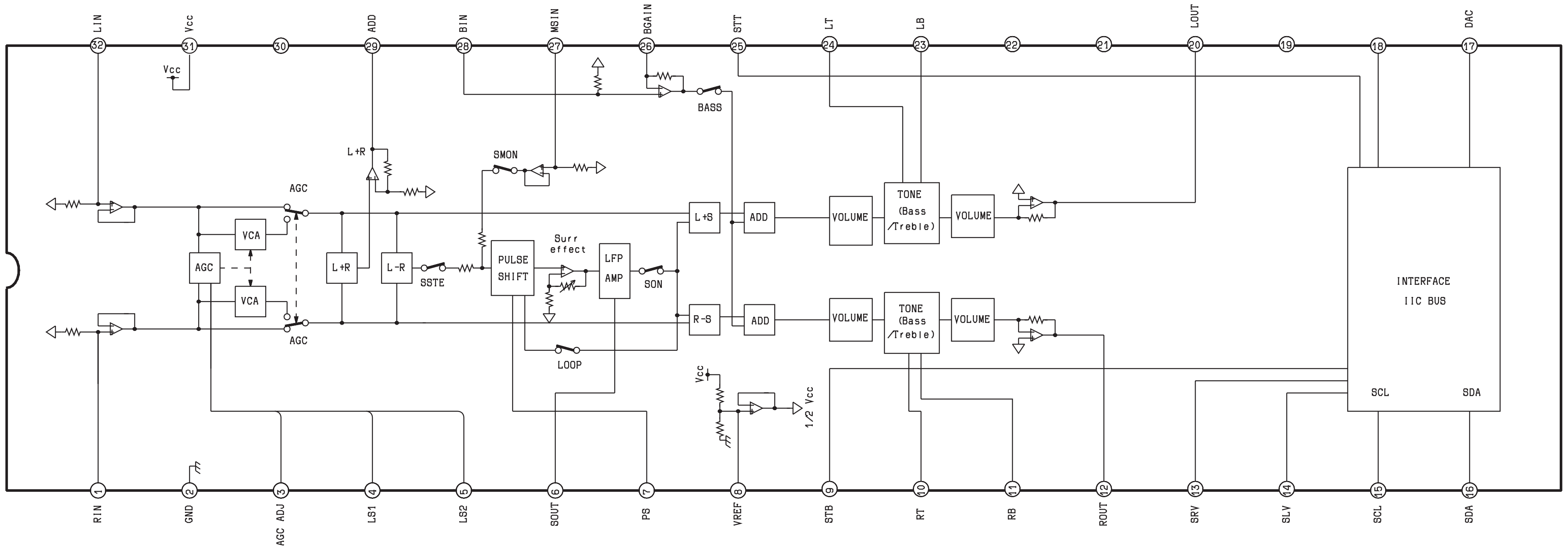
C1DB00000274


INTRB
SCL
SDA
VSS
COMPARATOR A
COMPARATOR B
ALARM A REGISTER (WEEK,MIN,HOUR)
ALARM B REGISTER (WEEK,MIN,HOUR)
DIV
DIDVIDER CORRECTION
TIME COUNTER (SEC,MIN,HOUR,WEEK,DAY,MONTH,YEAR)
I/O CONTROL
ADDRESS REGISTER
ADDRESS DECODER
SHIFT REGISTER
OSC DETECT
OSC
INTERRUPT CONTROL
32kHz OUTPUT CONTROL
VDD
OSCIN
OSCOUT
INTRA

C0ZBZ0000561


NC
NC
VDD
HIN
NC
LIN
GND
NC
+5V
DEADTIME & SHOOT THROUGH PREVENTION
VDD/VCC LEVEL SHIFT
PULSE GENERATOR
HV LEVEL SHIFT
PULSE FILTER
UV DETECT
R Q
R
S
UV DETECT
DELAY
HO
VB
VS
NC
NC
VCC
GND
LO

BH3865S

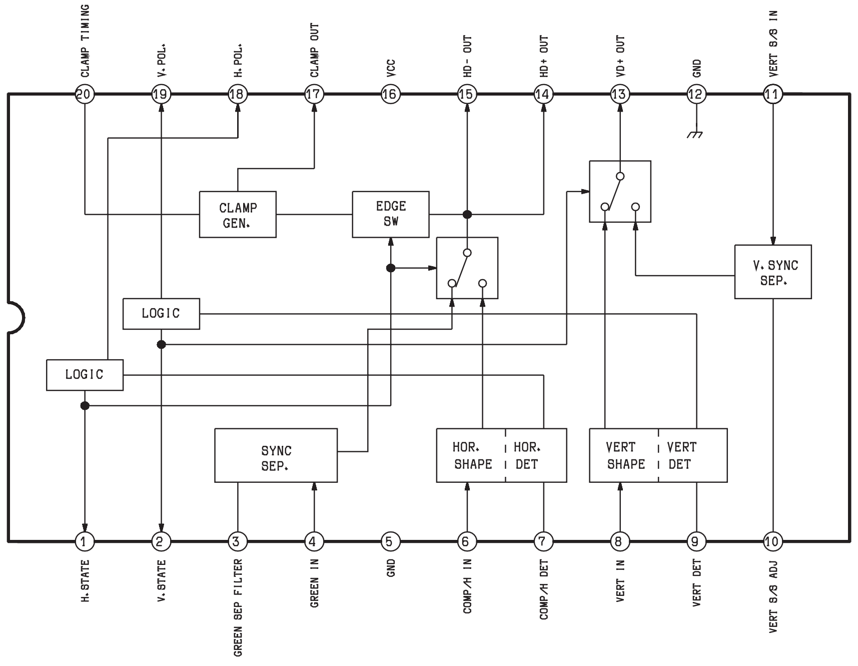

LIN
Vcc
ADD
BIN
MSIN
BGAIN
STT
LT
LB
LOUT
DAC
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
Vcc
L+R
SMON
BASS
AGC
VCA
AGC
VCA
AGC
L+R
L-R
SSTE
PULSE SHIFT
Surr effect
LFP AMP
SON
LOOP
L+S
R-S
ADD
ADD
VOLUME
VOLUME
TONE (Bass /Treble)
TONE (Bass /Treble)
VOLUME
VOLUME
Vcc
1/2 Vcc
INTERFACE
IIC BUS
SCL
SDA
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
RIN
GND
AGC ADJ
LS1
LS2
SOUT
PS
VREF
STB
RT
RS
ROUT
SRV
SLV
SCL
SDA

PIN NO.	SYMBOL	FUNCTION	PIN NO.	SYMBOL	FUNCTION
1	RIN	R CH INPUT	17	DAC	EX. DAC
2	GND	GND	18	SCV	VOL C CH SHOCK
3	AGC ADJ	AGC 0dB ADJ	19	COUT	C CH OUT
4	LS1	AGC LEVEL SENSOR1	20	LOUT	L CH OUT
5	LS2	AGC LEVEL SENSOR2	21	CB	C CH BASS FC
6	SOUT	S CH OUT AND LPF	22	CT	C CH TREBLE FC
7	PS	PHASE SHIFT	23	LB	L CH BASS FC
8	VREF	1/2 VCC	24	LT	L CH TREBLE
9	STB	BASS SHOCK	25	STT	TREBLE SHOCK
10	RT	R CH TREBLE FC	26	BGAIN	BASS MIX GAIN
11	RS	R CH BASS FC	27	MSIN	MONO SURR IN
12	ROUT	R CH OUT	28	BIN	BASS DET LPF AMP
13	SRV	VOL R CH SHOCK	29	ADD	AGC L+R OUT
14	SLV	VOL L CH SHOCK	30	CIN	C CH INPUT
15	SCL	SERIAL CLOCK	31	VCC	9V
16	SDA	SERIAL DATA	32	LIN	L CH INPUT

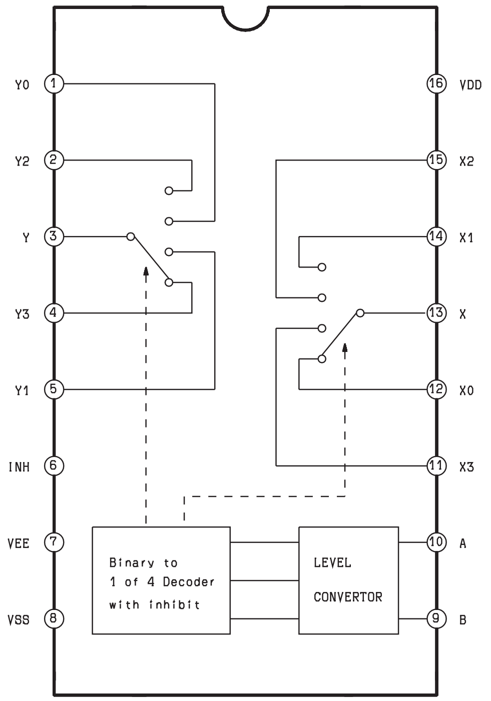
A
B
C
D
E

1 2 3 4 5 6 7

M52036SP

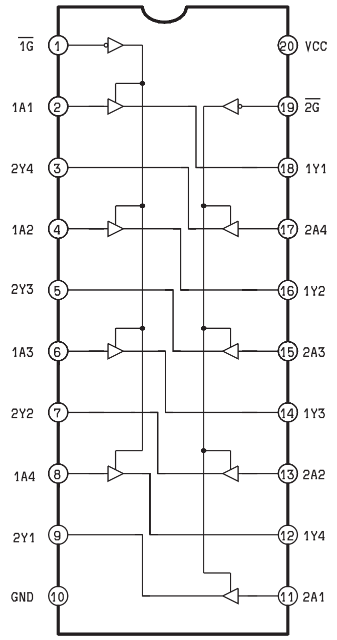

CLAMP TIMING
V.POL.
H.POL.
CLAMP OUT
VCC
HD- OUT
HD+ OUT
VD+ OUT
GND
VERT S/S IN
CLAMP GEN.
EDGE SW
V.SYNC SEP.
LOGIC
LOGIC
SYNC SEP.
HOR. SHAPE
HOR. DET
VERT SHAPE
VERT DET
H.STATE
V.STATE
GREEN SEP FILTER
GREEN IN
GND
COMP/H IN
COMP/H DET
VERT IN
VERT DET
VERT S/S ADJ

MC14052BF


Y0
Y2
Y
Y3
Y1
INH
VEE
VSS
VDD
X2
X1
X
X0
X3
A
B
Binary to 1 of 4 Decoder with inhibit
LEVEL CONVERTOR

INPUTS		OUTPUTS	
A	B	X	Y
L	L	X0	Y0
L	H	X1	Y1
H	L	X2	Y2
H	H	X3	Y3

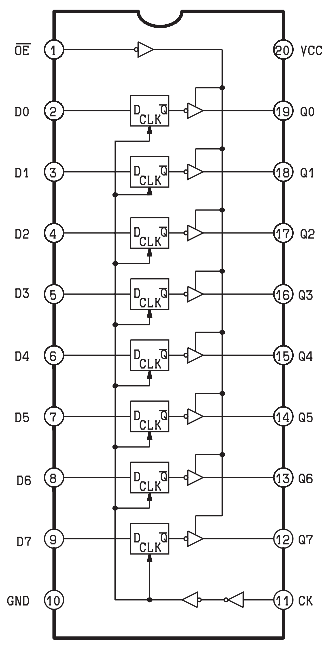
TC74ACT244F
TC74HC244F
TC74LCX244F


1G
1A1
2Y4
1A2
2Y3
1A3
2Y2
1A4
2Y1
GND
VCC
2G
1Y1
2A4
1Y2
2A3
1Y3
2A2
1Y4
2A1

INPUTS		OUTPUTS
G	An	
L	L	L
L	H	H
H	X	Z

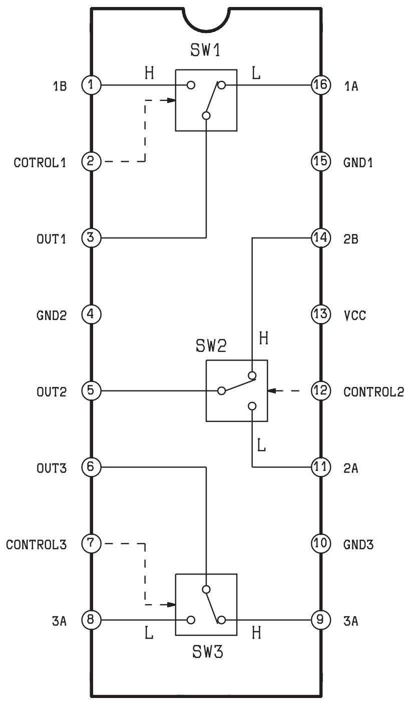
X:Don't Care
Z:High Impedance

TC74LCX574F

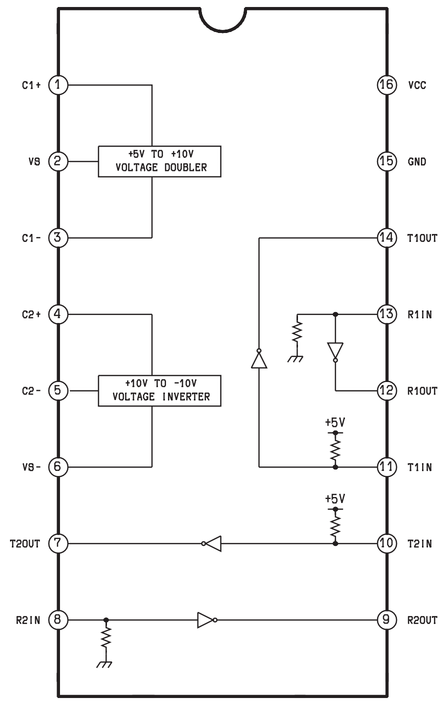

OE
D0
D1
D2
D3
D4
D5
D6
D7
GND
VCC
Q0
Q1
Q2
Q3
Q4
Q5
Q6
Q7
CK
D
CLK
Q

INPUTS			OUTPUTS
OE	CK	D	
H	X	X	Z
L	L	X	ON
L	L	L	L
L	L	H	H

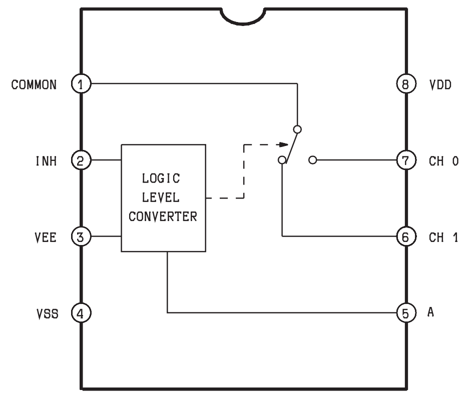
M52055FP


SW1
H
L
1B
COTROL1
OUT1
GND2
OUT2
OUT3
CONTROL3
3A
1A
GND1
2B
VCC
CONTROL2
2A
GND3
3A
SW2
H
L
SW3
L
H

MAX202CSE


C1+
VS
C1-
C2+
C2-
VS-
T2OUT
R2IN
VCC
GND
T1OUT
R1IN
R1OUT
T1IN
T2IN
R2OUT
+5V TO +10V VOLTAGE DOUBLER
+10V TO -10V VOLTAGE INVERTER
+5V
+5V

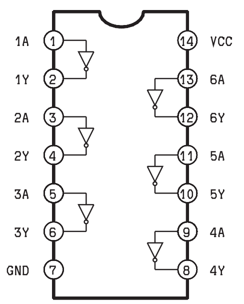
TC4W53F


COMMON
INH
VEE
VSS
VDD
CH 0
CH 1
A
LOGIC LEVEL CONVERTER

INPUTA		ON CHNNEL
INH	A	
L	L	CH 0
L	H	CH 1
H	*	NONE

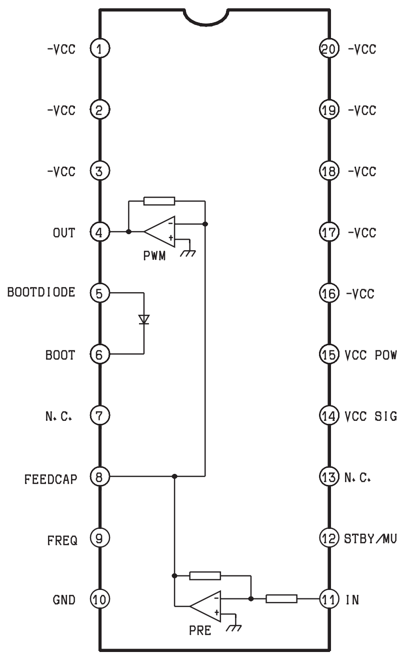
*:Don't care

TC74HC14AF
TC74HCU04AF


1A
1Y
2A
2Y
3A
3Y
GND
VCC
6A
6Y
5A
5Y
4A
4Y

A	Y
L	H
H	L

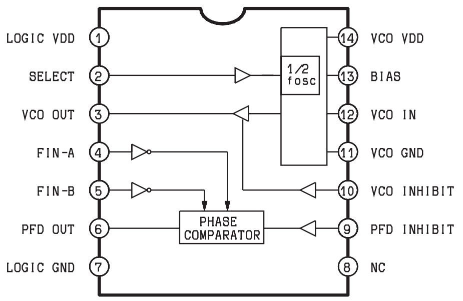
TDA7480


-VCC
-VCC
-VCC
OUT
BOOTDIODE
BOOT
N.C.
FEEDCAP
FREQ
GND
-VCC
-VCC
-VCC
-VCC
-VCC
VCC POW
VCC SIGN
N.C.
STBY/MUTE
IN
PWM
PRE

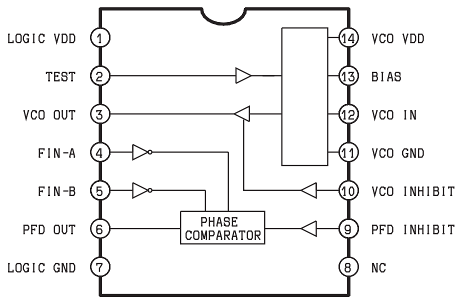
INPUTS		OUTPUTS
G	An	
L	L	L
L	H	H
H	X	Z

X:Don't Care
Z:High Impedance

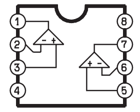
TCL2932


LOGIC VDD
SELECT
VCO OUT
FIN-A
FIN-B
PFD OUT
LOGIC GND
VCO VDD
BIAS
VCO IN
VCO GND
VCO INHIBIT
PFD INHIBIT
NC
1/2 fosc
PHASE COMPARATOR

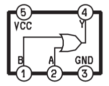
TCL2933


LOGIC VDD
TEST
VCO OUT
FIN-A
FIN-B
PFD OUT
LOGIC GND
VCO VDD
BIAS
VCO IN
VCO GND
VCO INHIBIT
PFD INHIBIT
NC
PHASE COMPARATOR

NJM2903M



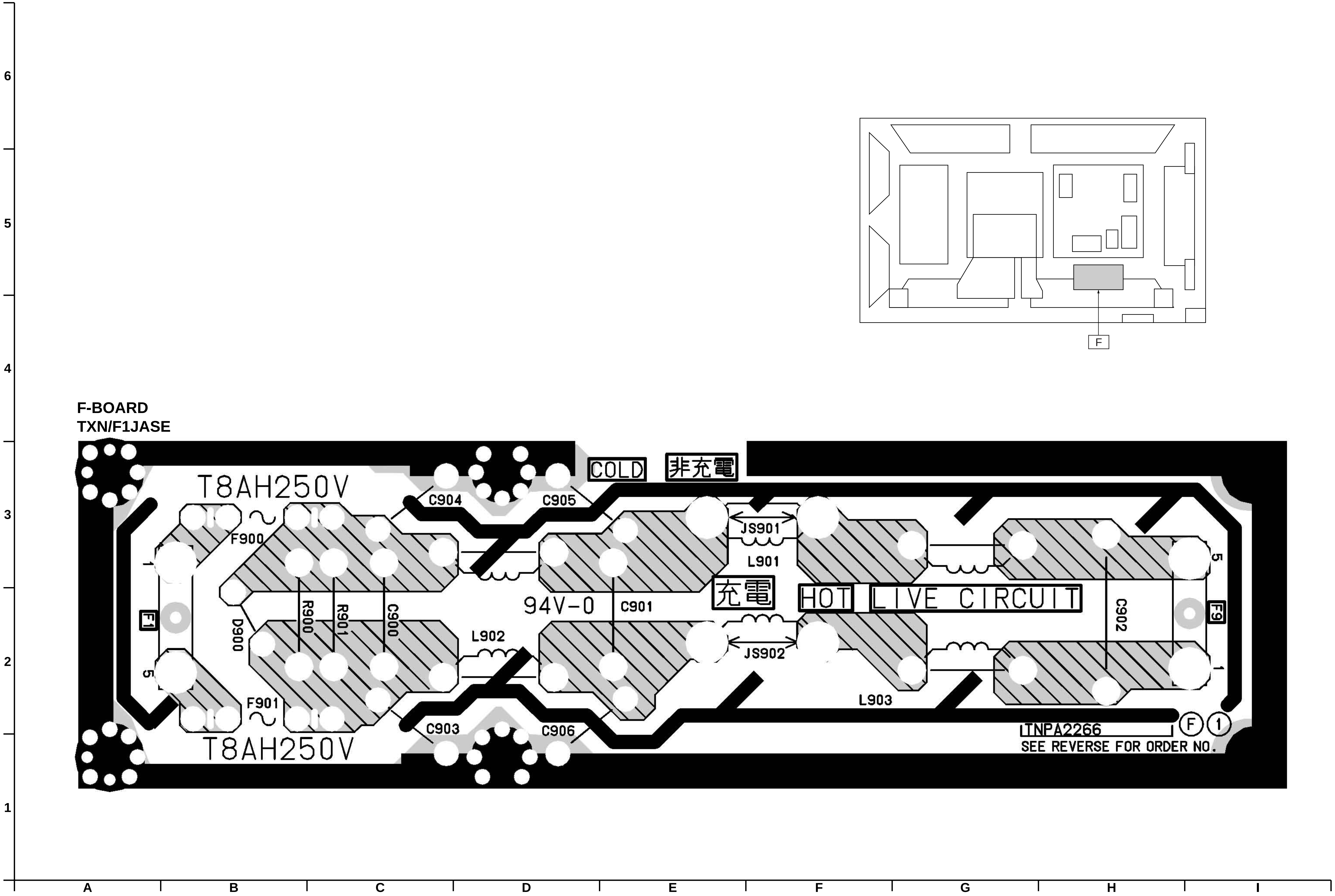
TC7SH32FU



A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

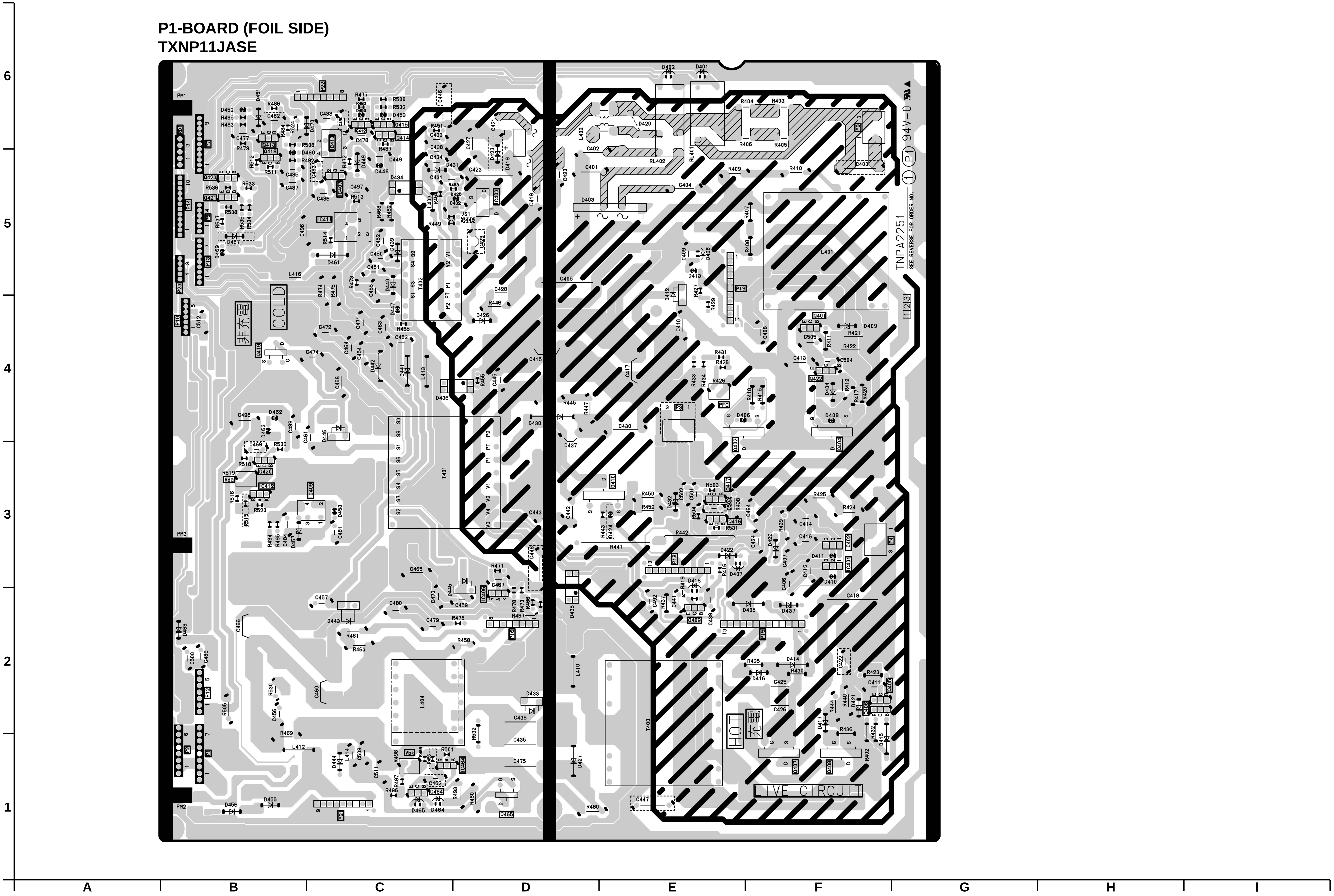
11 Conductor Views

11.1. F-Board

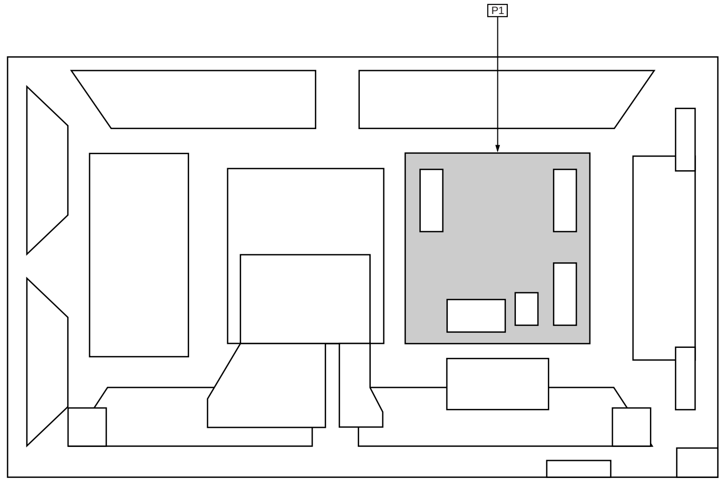

F-BOARD
TXN/F1JASE
T8AH250V
F900
F901
T8AH250V
C904
C905
C903
C906
COLD
非充電
充電
HOT
LIVE CIRCUIT
JS901
L901
JS902
L902
L903
94V-0
C901
C900
R900
R901
D900
C902
F1
F9
1
5
5
1
TNPA2266
SEE REVERSE FOR ORDER NO.
F
1
F
A
B
C
D
E
F
G
H
I
1
2
3
4
5
6

11.2. P1-Board

P1-BOARD (FOIL SIDE)
TXNP11JASE



6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
PM1
PM2
PM3
COLD
HOT
LIVE CIRCUIT
TNPA2251
SEE REVERSE FOR ORDER NO.
94V-0
P1
T401
T402
T400
L401
L404
L410
RL401
RL402



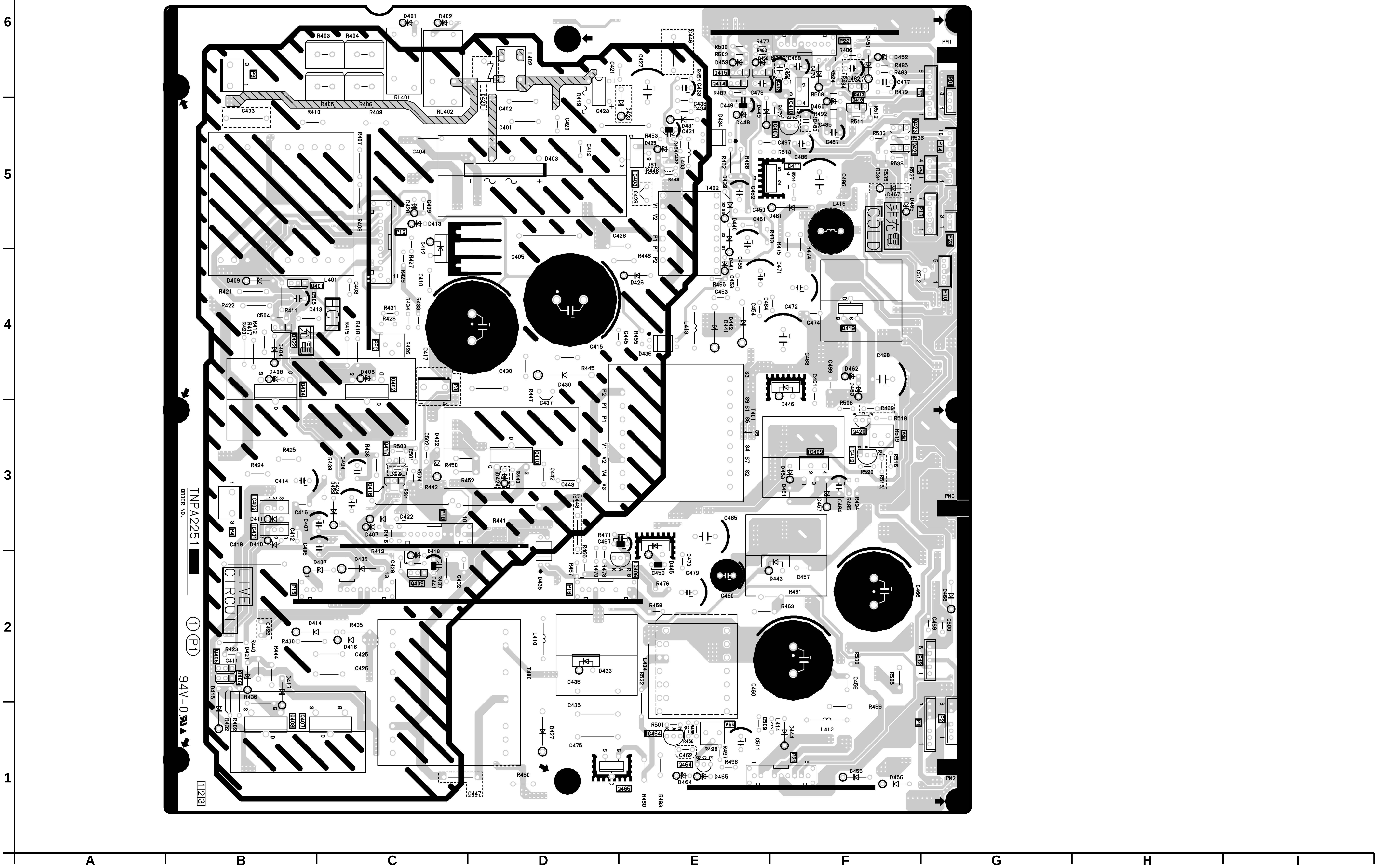
Parts Location

P-BOARD (FOIL SIDE)					
IC		**TRANSISTOR**			
IC401	F-3	Q401	F-4	Q417	E-3
IC402	F-3	Q402	E-3	Q418	B-5
IC403	D-5	Q404	F-3	Q419	B-4
IC406	D-2	Q405	F-2	Q420	B-3
IC407	C-5	Q406	F-2	Q421	B-5
IC409	C-3	Q407	F-1	Q422	F-4
IC410	C-5	Q408	F-1	Q423	B-5
IC411	C-5	Q409	E-2	Q464	C-1
IC412	B-3	Q410	E-3	Q465	D-1
IC464	D-1	Q412	C-6		
		Q413	B-5		
		Q414	C-6		
		Q415	C-6		
		Q416	E-3		

Parts Location

P-BOARD (COMPONENT SIDE)					
IC		**TRANSISTOR**			
IC401	B-3	Q401	B-3	Q418	F-5
IC402	B-3	Q402	C-4	Q419	F-4
IC403	E-5	Q404	B-3	Q420	F-3
IC406	E-2	Q405	B-2	Q421	F-5
IC407	E-5	Q406	B-2	Q422	B-3
IC409	F-3	Q407	B-1	Q423	F-5
IC410	F-5	Q408	B-1	Q464	E-1
IC411	F-5	Q409	C-2	Q465	D-1
IC412	F-3	Q410	D-3		
IC464	E-1	Q413	F-5		
		Q414	E-6		
		Q415	E-6		
		Q416	C-3		
		Q417	C-3		

P1-BOARD(COMPONENT SIDE)
TXNP11JASE


6
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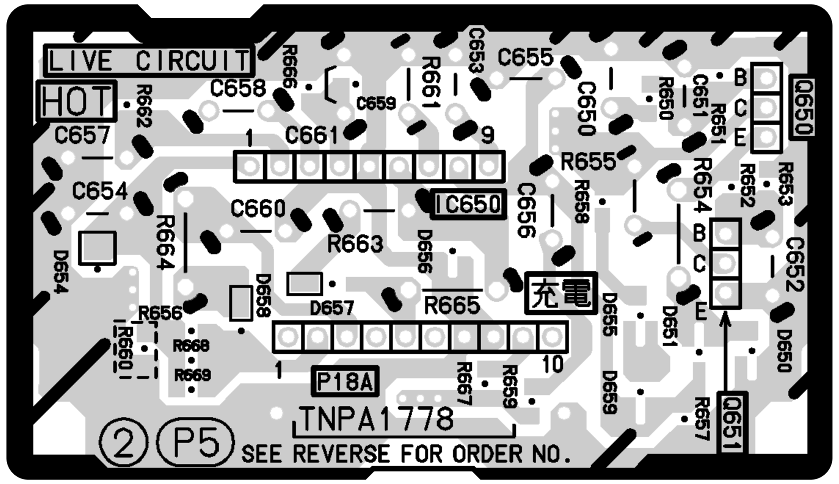
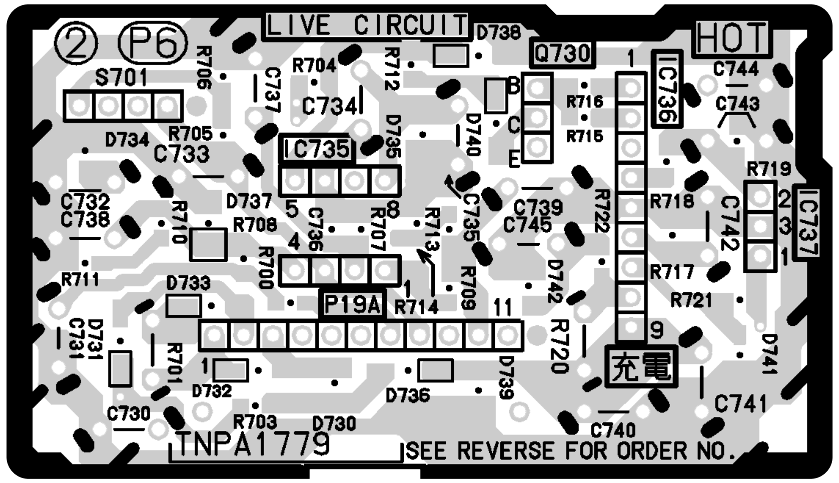
A
B
C
D
E
F
G
H
I
PM1
PM2
PM3
TNPA2251
ORDER NO.
LIVE CIRCUIT
P1
94V-0
COLD
T400
T401
T402
RL401
RL402
L401
L402
L403
L404
L410
L412
L413
L414
L416
D401
D402
D403
C401
C402
C403
C404
C405
C415
C430
C460
C466
C472
C498
R403
R404
R405
R406
R409
R410
JS1

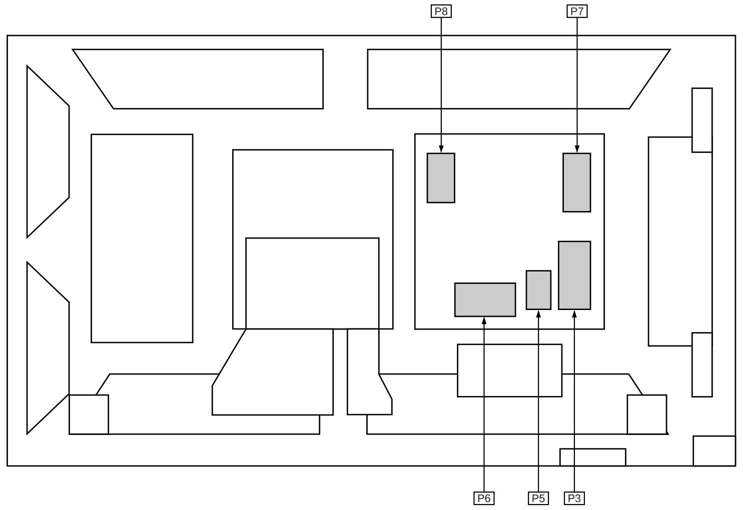
11.3. P3, P5, P6, P7 and P8-Board

P5-BOARD (FOIL SIDE)
TNPA1778

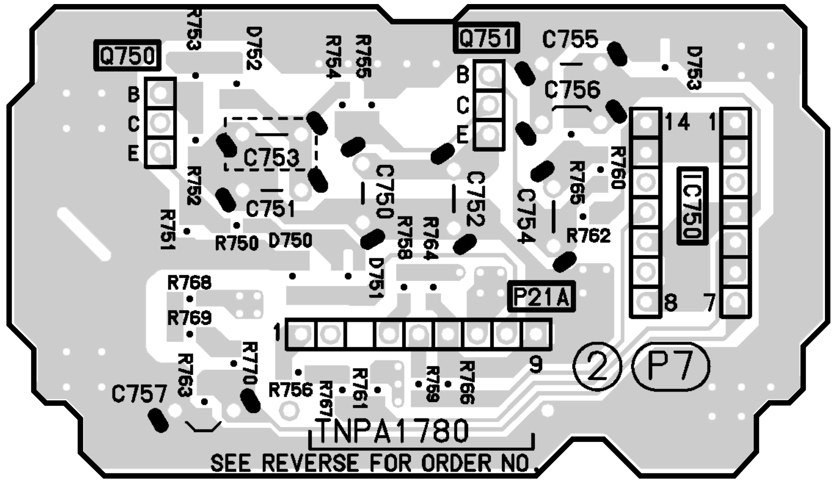

LIVE CIRCUIT
HOT
C658
C657
C654
R664
D654
R656
R660
R668
R669
C661
C660
R663
C659
R661
C653
C655
C650
IC650
C656
R658
D656
R655
R654
R652
R653
R650
R651
Q650
C652
D658
D657
R665
充電
D655
D651
D650
P18A
R667
R659
D659
R657
Q651
TNPA1778
② P5
SEE REVERSE FOR ORDER NO.

P6-BOARD (FOIL SIDE)
TNPA1779

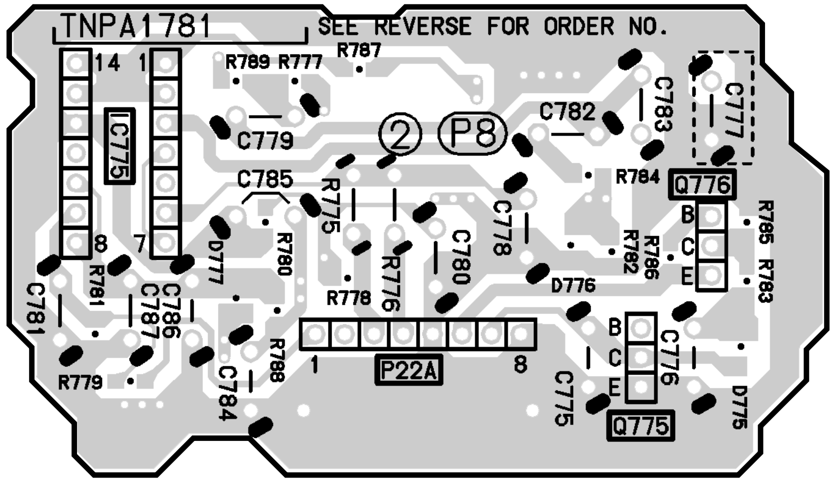

② P6
LIVE CIRCUIT
HOT
S701
R706
R704
R712
C737
C734
D738
Q730
IC736
C744
C743
R716
R715
D734
R705
C733
IC735
D735
D740
C732
C738
R710
D737
R708
C736
R707
R713
C735
C739
C745
R722
R718
R719
C742
IC737
R711
D733
R700
P19A
R714
R709
D742
R717
R721
D731
C731
R701
D732
D736
D739
R720
充電
D741
C730
R703
D730
C740
C741
TNPA1779
SEE REVERSE FOR ORDER NO.


P8
P7
P6
P5
P3

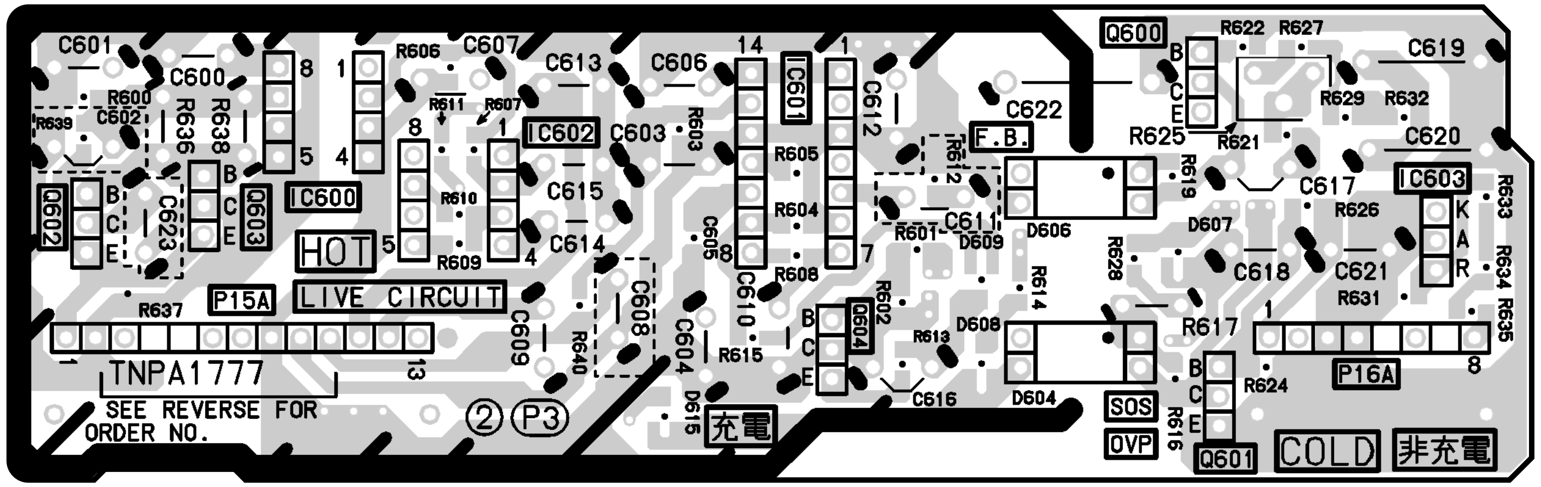
P7-BOARD (FOIL SIDE)
TNPA1780


Q750
R753
D752
R754
R755
Q751
C755
C756
D753
C753
C750
C752
C754
R765
R760
IC750
R752
C751
R751
R750
D750
R758
R764
R762
D751
R768
R769
P21A
R763
R770
R756
R767
R761
R759
R766
C757
② P7
TNPA1780
SEE REVERSE FOR ORDER NO.

P8-BOARD (FOIL SIDE)
TNPA1781


TNPA1781
SEE REVERSE FOR ORDER NO.
R789
R777
R787
IC775
C779
② P8
C782
C783
C777
C785
R775
C778
R784
Q776
R785
R783
R786
R782
D777
R780
C780
R776
D776
R778
R781
C781
C786
C787
P22A
C776
R788
C784
R779
C775
D775
Q775

P3-BOARD (FOIL SIDE)
TNPA1777


C601
C600
R600
C602
R639
R636
R638
Q602
C623
Q603
IC600
HOT
LIVE CIRCUIT
R637
P15A
TNPA1777
SEE REVERSE FOR ORDER NO.
② P3
R606
C607
R611
R607
IC602
C613
C606
C603
R603
C615
R610
C614
R609
C608
C609
R640
C604
D615
R615
充電
C601
C612
R605
R604
C605
C610
R608
Q604
R602
R613
D608
C616
D604
F.B.
R612
C611
R601
D609
D606
C622
R625
Q600
R622
R627
R621
R619
R629
R632
C619
C620
C617
IC603
R626
D607
R628
R614
C618
C621
R631
R617
R624
P16A
R633
R634
R635
Q601
R616
SOS
OVP
COLD
非充電
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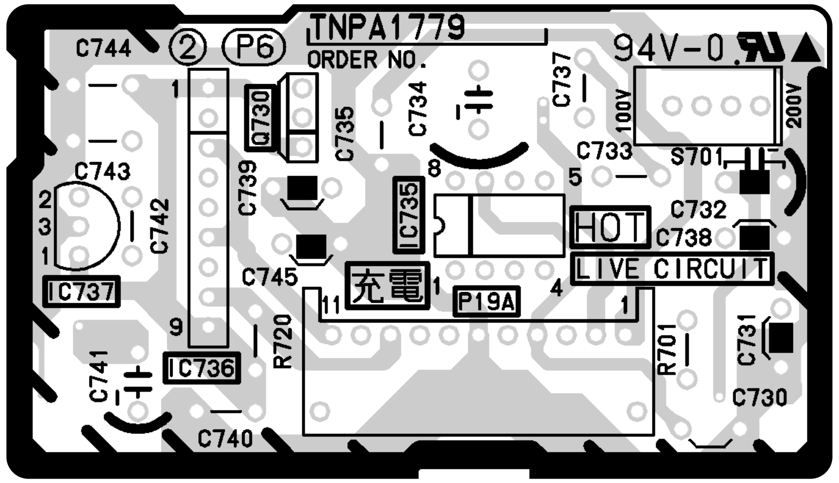
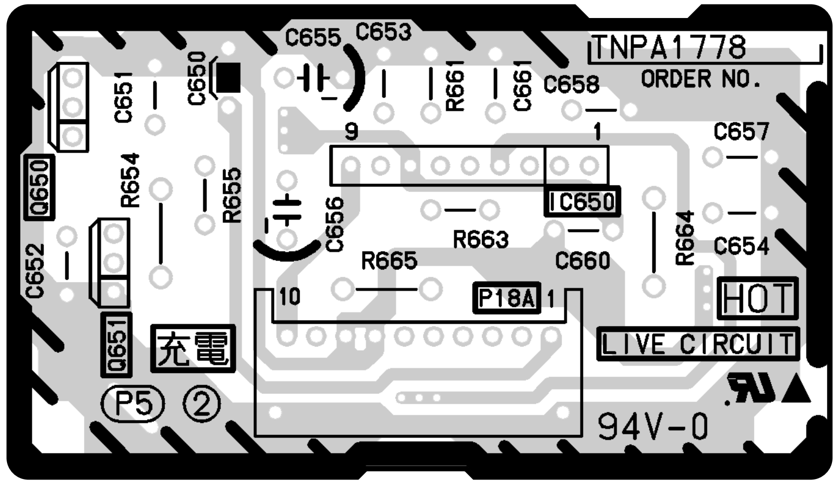
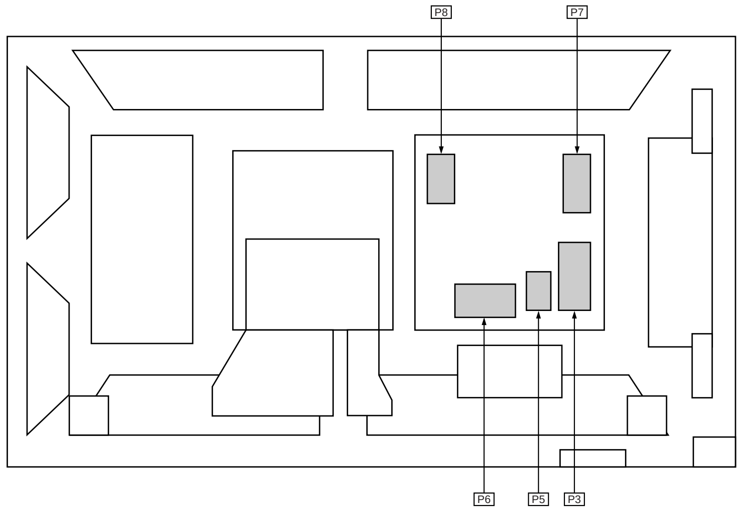
P6-BOARD (COMPONENT SIDE)
TNPA1779

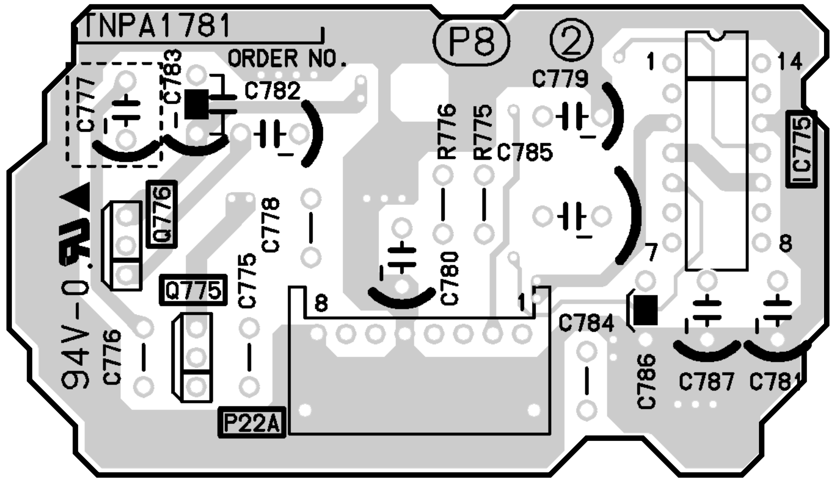

C744
②
P6
TNPA1779
ORDER NO.
94V-0
C737
100V
200V
Q730
C735
C734
C733
S701
C743
C739
C742
IC737
IC735
C732
C738
HOT
LIVE CIRCUIT
充電
C745
P19A
IC736
R720
C741
C740
R701
C731
C730

P5-BOARD (COMPONENT SIDE)
TNPA1778

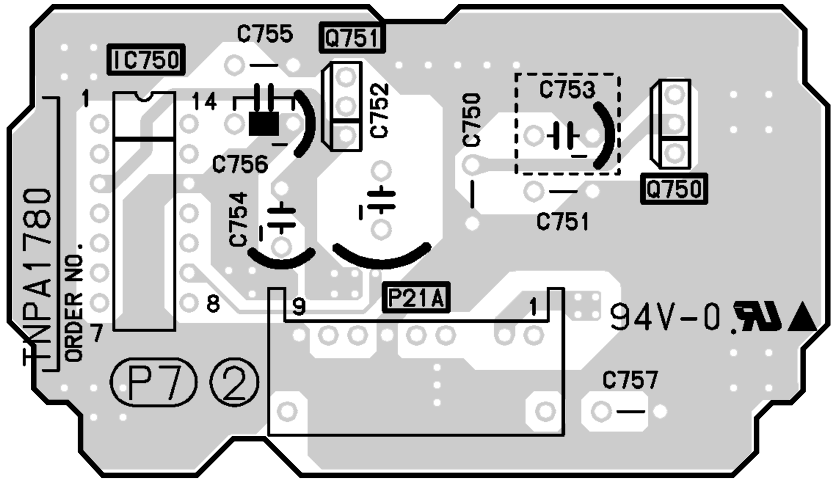

C655
C653
TNPA1778
ORDER NO.
C650
C651
R661
C661
C658
C657
Q650
R654
R655
IC650
C656
R663
R665
C660
R664
C654
C652
Q651
充電
P18A
HOT
LIVE CIRCUIT
P5
②
94V-0


P8
P7
P6
P5
P3

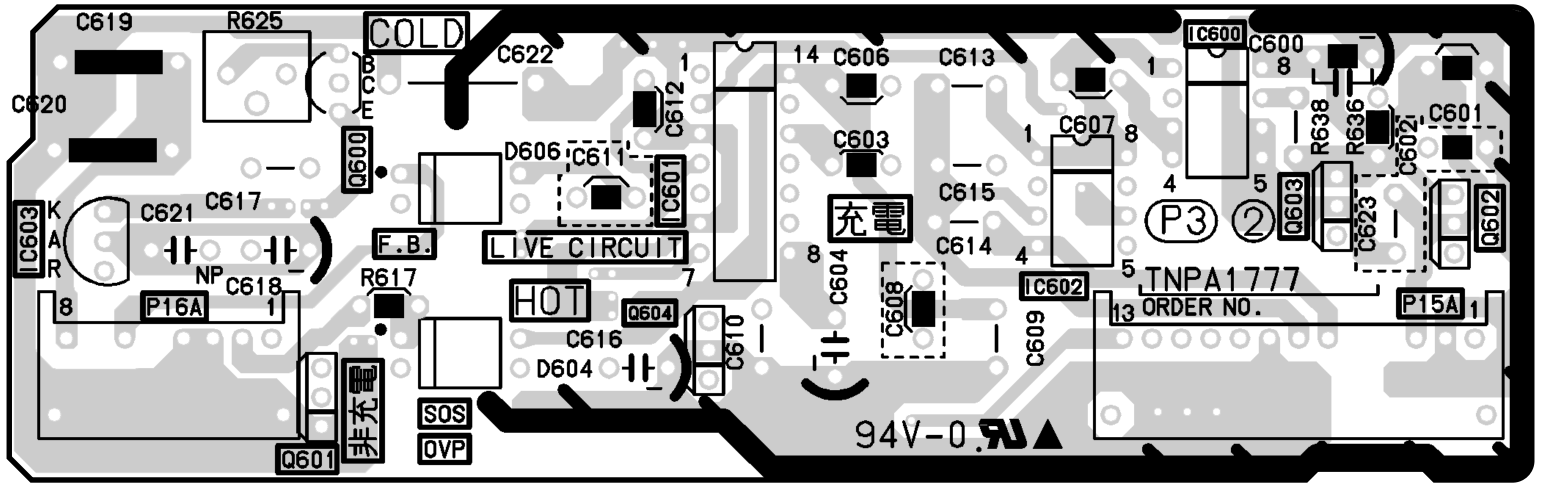
P8-BOARD (COMPONENT SIDE)
TNPA1781


TNPA1781
ORDER NO.
P8
②
C777
C783
C782
C779
R776
R775
C785
IC775
Q776
C778
C780
Q775
C775
C784
C776
94V-0
P22A
C786
C787
C781

P7-BOARD (COMPONENT SIDE)
TNPA1780


IC750
C755
Q751
C753
C752
C750
C756
C754
Q750
C751
TNPA1780
ORDER NO.
P21A
94V-0
C757
P7
②

P3-BOARD (COMPONENT SIDE)
TNPA1777


C619
R625
COLD
C622
C606
C613
IC600
C600
C620
Q600
C612
C603
C607
R638
R636
C601
D606
C611
C601
C615
C602
IC603
C621
C617
K
A
R
NP
C618
F.B.
LIVE CIRCUIT
充電
C614
P3
②
Q603
C623
Q602
R617
HOT
Q604
C604
C608
IC602
TNPA1777
ORDER NO.
P16A
C616
D604
C610
C609
P15A
非充電
SOS
OVP
Q601
94V-0

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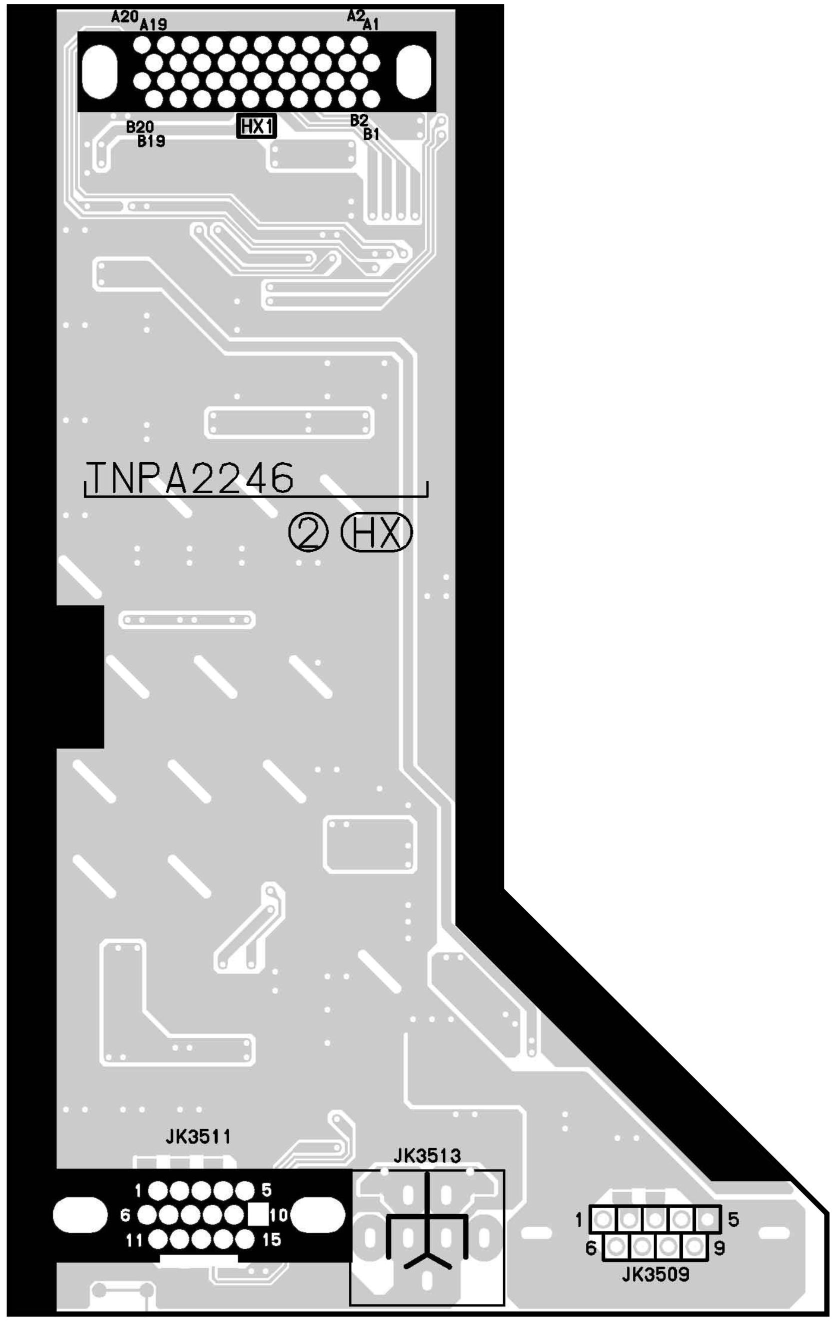
A B C D E F G H I

11.4. HX-Board

HX-BOARD(FOIL SIDE)
TZTNP01KNSR


A20
A19
A2
A1
B20
B19
HX1
B2
B1
TNPA2246
② HX
JK3511
JK3513
1
5
6
10
11
15
1
5
6
9
JK3509
A
B
C
D
E
F
G
H
I
1
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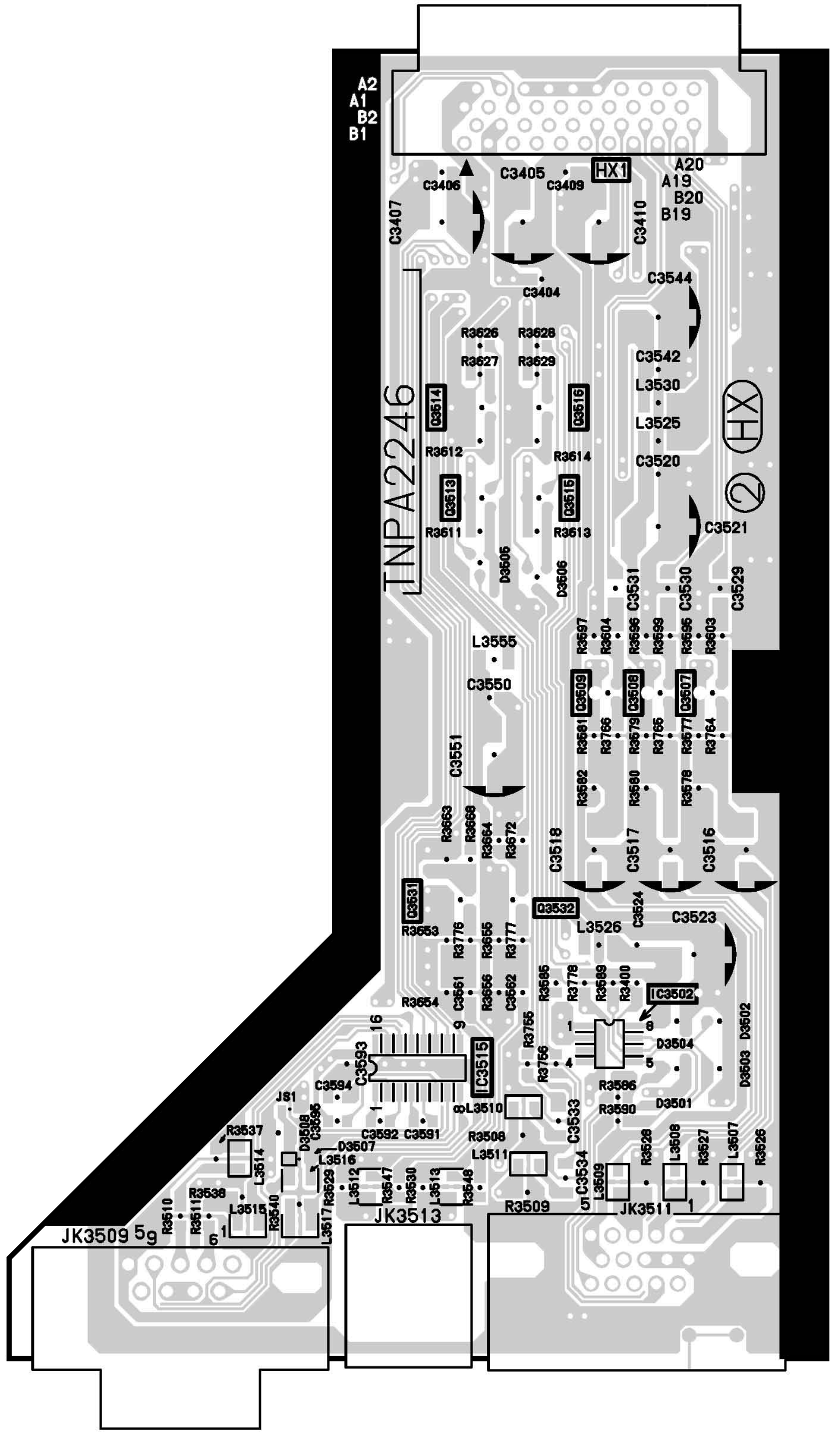
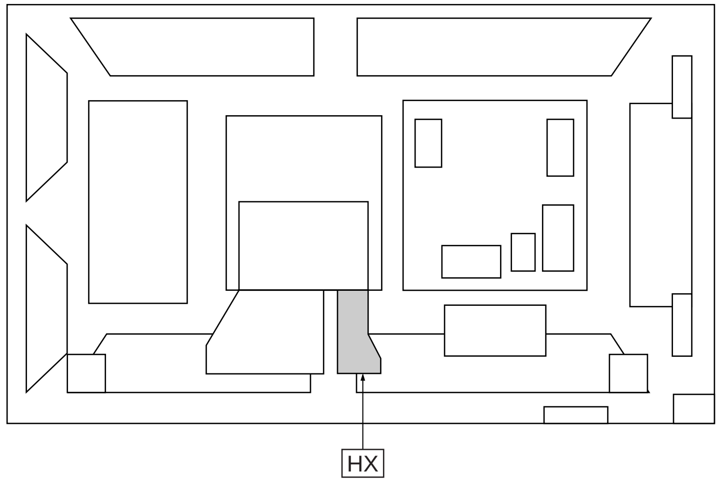
4
5
6

HX-BOARD(COMPONENT SIDE)
TZTNP01KNSR


A2
A1
B2
B1
HX1
A20
A19
B20
B19
C3406
C3405
C3409
C3407
C3410
C3404
C3544
R3626
R3628
R3627
R3629
C3542
L3530
Q3514
Q3515
L3525
R3612
R3614
C3520
Q3513
Q3516
R3611
R3613
C3521
TNPA2246
② HX
D3505
D3506
C3531
C3530
C3529
L3555
C3550
Q3509
Q3508
Q3507
C3551
C3518
C3517
C3516
Q3531
Q3532
R3653
L3526
C3523
IC3502
IC3515
R3654
D3504
C3593
C3594
JS1
R3537
L3510
R3586
R3590
D3501
D3507
L3516
R3508
L3511
C3533
C3534
L3509
R3510
R3511
R3536
L3515
JK3509
JK3513
R3509
JK3511

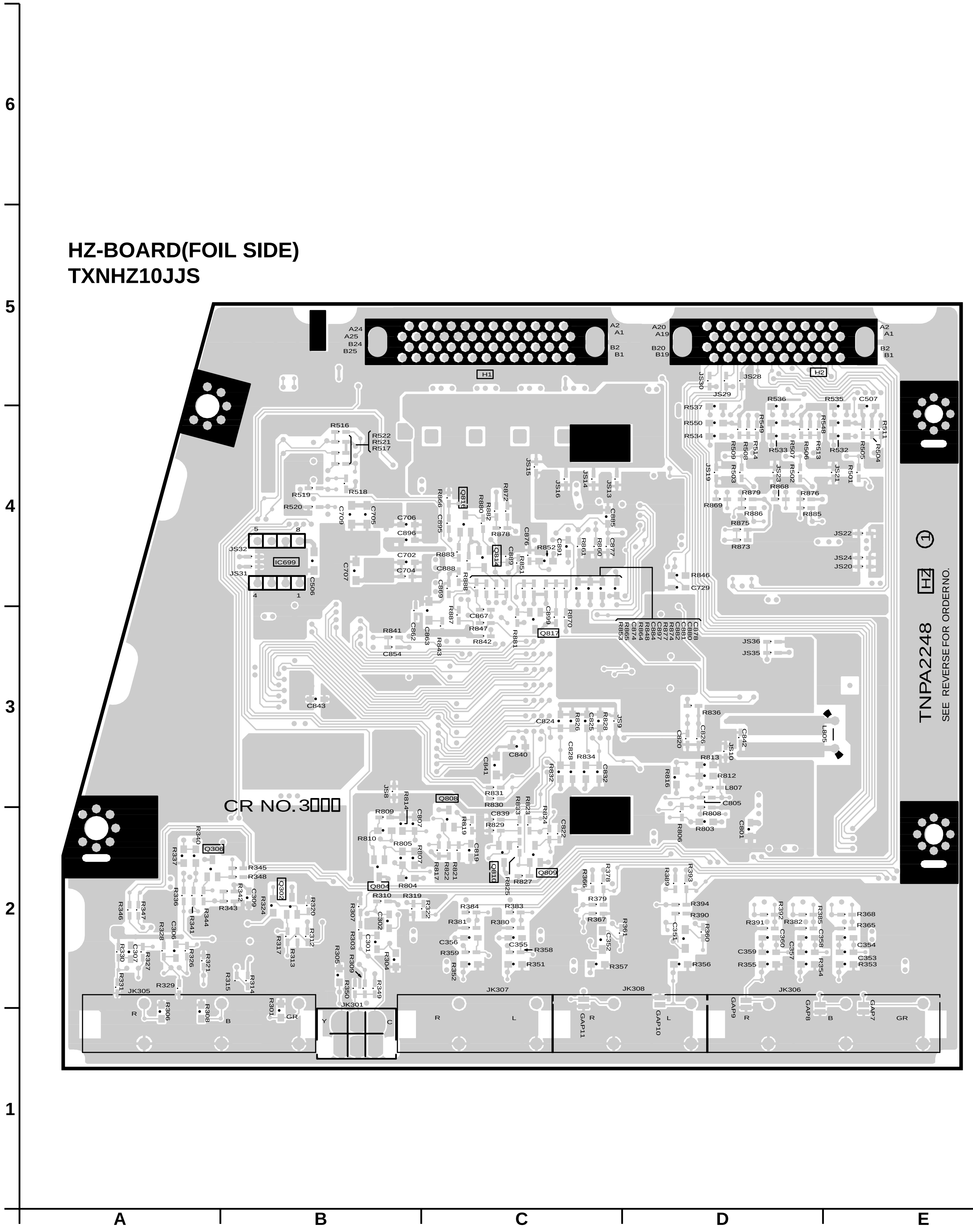


Parts Location

HX-BOARD			
IC		TRANSISTOR	
IC3502	F-2	Q3507	F-3
IC3515	E-2	Q3508	F-3
		Q3509	F-3
		Q3513	E-4
		Q3514	E-4
		Q3515	F-4
		Q3516	F-4
		Q3531	E-3
		Q3532	F-3

11.5. HZ-Board (Option RTB421)

HZ-BOARD(FOIL SIDE)
TXNHZ10JJS


6
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A
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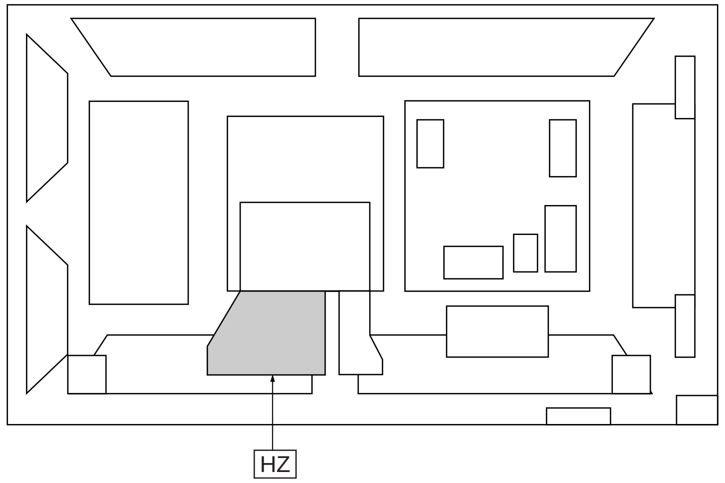
C
D
E
F
H1
H2
IC699
Q306
Q302
Q804
Q808
Q809
Q810
Q814
Q816
Q817
JK305
JK301
JK307
JK308
JK306
TNPA2248
SEE REVERSE FOR ORDER NO.
HZ
CR NO.3

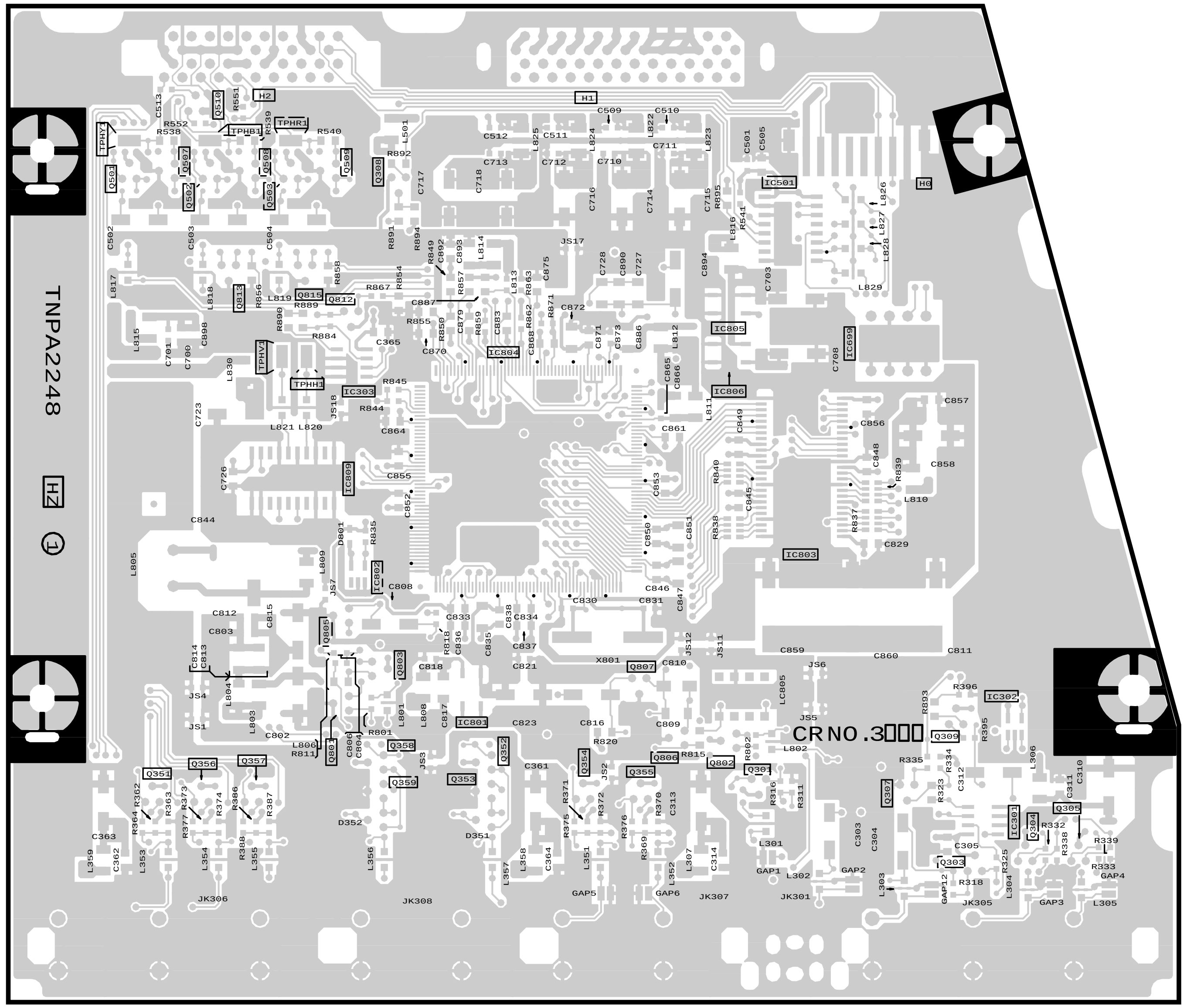


G H I

Parts Location

HZ-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC3699	B-4	Q3302	B-2
		Q3306	A-2
		Q3804	B-2
		Q3808	C-3
		Q3809	C-2
		Q3810	C-2
		Q3814	C-4
		Q3816	C-4
		Q3817	C-3

HZ-BOARD(COMPONENT SIDE)
TXNHZ10JJS



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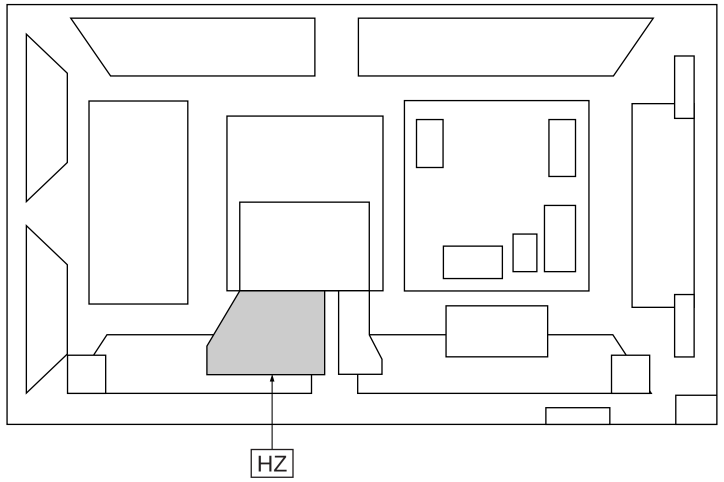
F
G
H
I
TNPA2248
HZ
CR NO.3
H1
H2
H0
TPHY1
TPHB1
TPHR1
TPHV1
TPHH1
IC3501
IC3699
IC3805
IC3804
IC3806
IC3303
IC3809
IC3803
IC3802
IC3801
IC3302
IC3301
JK306
JK308
JK307
JK301
JK305
GAP1
GAP2
GAP3
GAP4
GAP5
GAP6



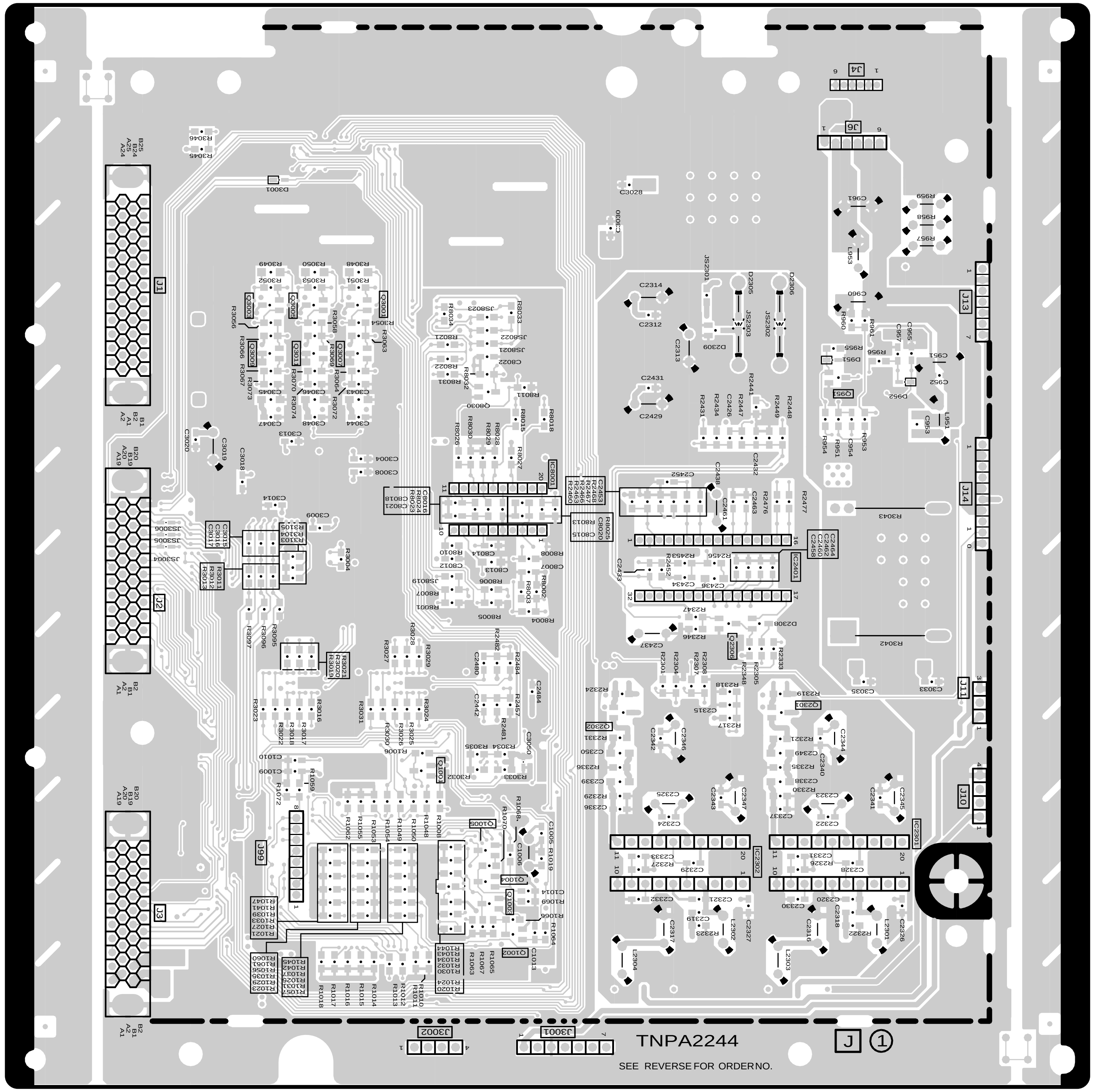
Parts Location

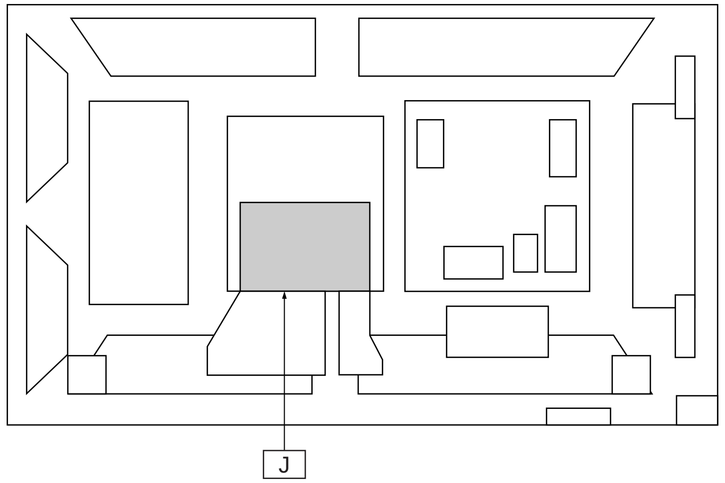
HZ-BOARD (COMPONENT SIDE)

IC		TRANSISTOR			
IC3301	E-2	Q3301	D-2	Q3507	A-4
IC3301	E-2	Q3303	D-2	Q3508	B-4
IC3302	D-2	Q3304	E-2	Q3509	B-4
IC3303	B-4	Q3305	E-2	Q3510	B-5
IC3501	D-4	Q3307	D-2	Q3801	B-2
IC3699	D-4	Q3308	B-4	Q3802	C-2
IC3801	B-2	Q3309	D-2	Q3803	B-2
IC3802	B-3	Q3351	A-2	Q3805	B-3
IC3803	D-3	Q3352	C-2	Q3806	C-2
IC3804	C-4	Q3353	B-2	Q3807	C-2
IC3805	C-4	Q3354	C-2	Q3812	B-4
IC3806	C-4	Q3355	C-2	Q3813	B-4
IC3809	B-3	Q3356	A-2	Q3815	B-4
		Q3357	B-2	**TP**	
		Q3358	B-2	TPHB1	B-5
		Q3359	B-2	TPHH1	B-4
		Q3501	A-4	TPHR1	B-5
		Q3502	A-4	TPHV1	B-4
		Q3503	B-4	TPHY1	A-4

11.6. J-Board

J-BOARD(FOIL SIDE)
TXN/J10JAS


TNPA2244
J ①
SEE REVERSE FOR ORDER NO.
J3001
J3002
J4
J6
J13
J14
J11
J10
J1
J2
J3
J99
IC2301
IC2302
IC2401
IC8001



Parts Location

J-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC2301	E-2	Q951	E-4
IC2302	E-2	Q1001	C-2
IC2401	E-3	Q1002	C-2
IC8001	D-4	Q1003	C-2
		Q1004	C-2
		Q1005	C-2
		Q2301	E-3
		Q2302	D-3
		Q2306	D-3
		Q3001	C-5
		Q3003	B-5
		Q3005	C-5
		Q3007	C-4
		Q3009	B-2
		Q3011	C-4

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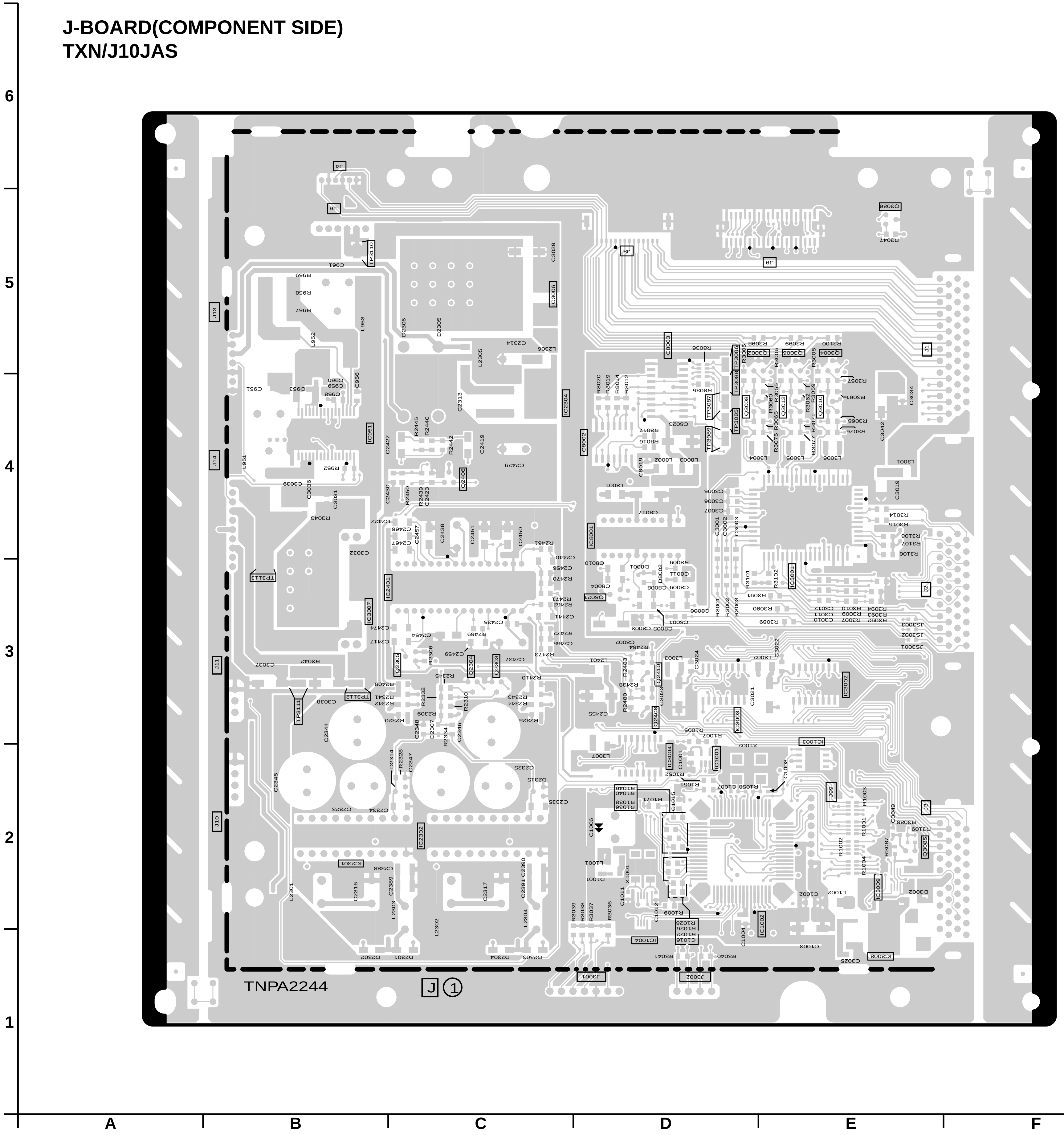
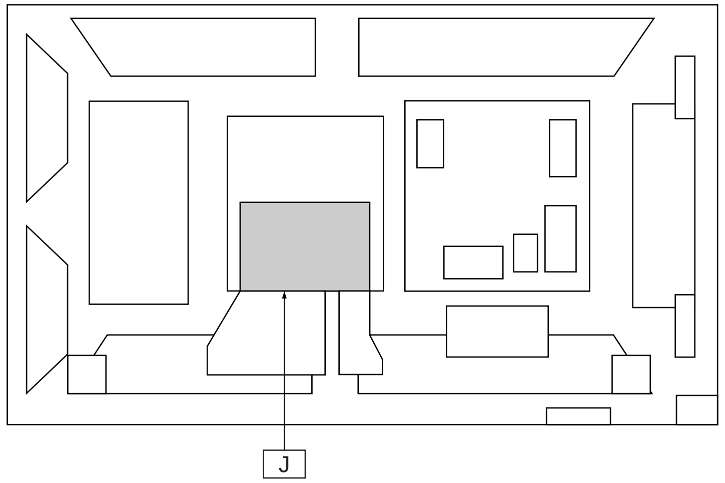
A B C D E F G H I

J-BOARD(COMPONENT SIDE)
TXN/J10JAS



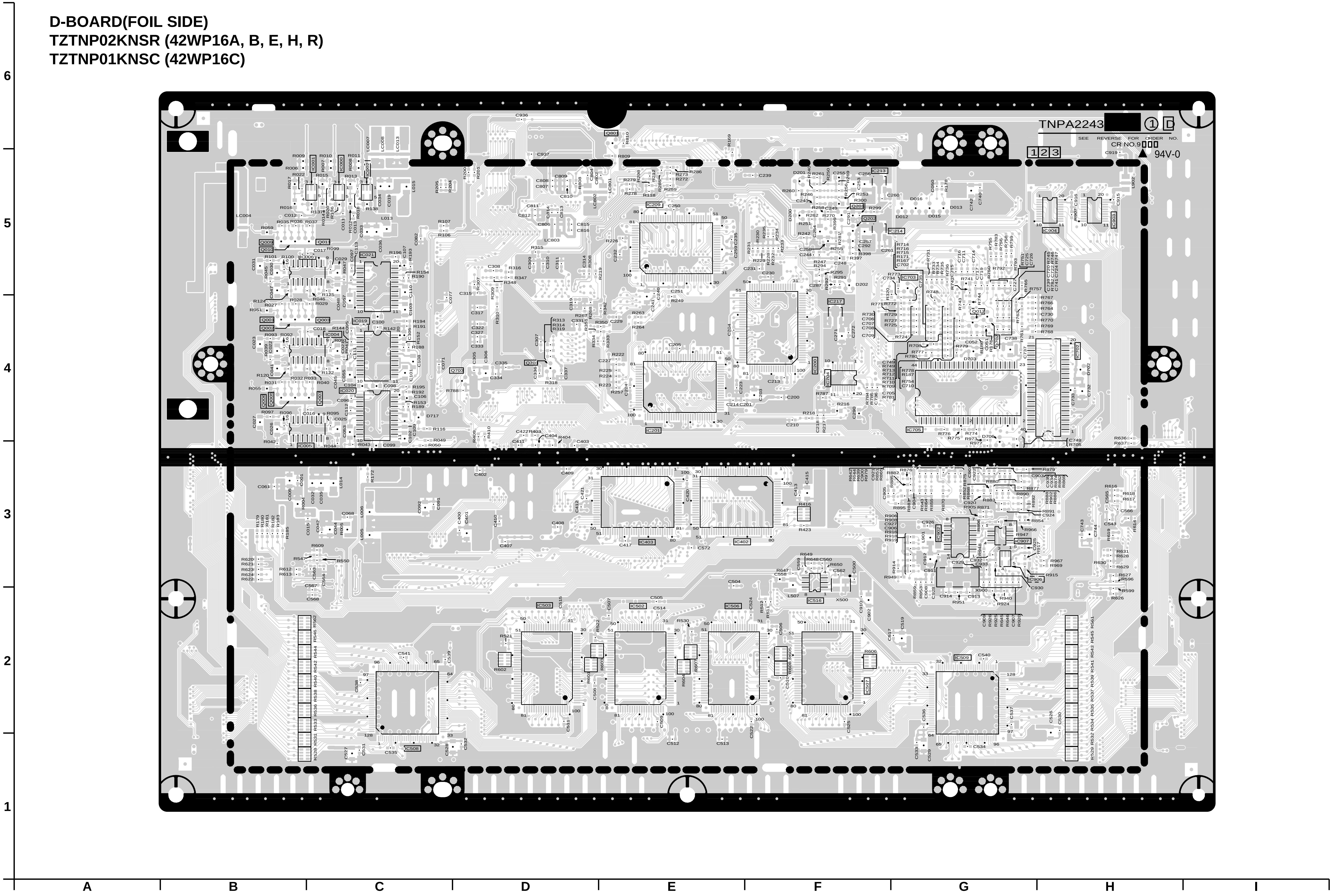


Parts Location

J-BOARD (COMPONENT SIDE)					
IC		TRANSISTOR		TP	
IC951	B-4	Q2303	C-3	TP3085	D-4
IC1001	D-2	Q2304	C-3	TP3086	D-5
IC1002	E-1	Q2305	C-3	TP3087	D-4
IC1003	E-3	Q2406	C-4	TP3088	D-4
IC1004	D-1	Q2408	D-3	TP3089	D-4
IC2301	B-2	Q2410	D-3	TP3110	B-5
IC2302	C-2	Q3002	E-5	TP3111	B-3
IC2304	C-4	Q3004	E-5	TP3112	B-3
IC2401	C-3	Q3006	E-5	TP3113	B-3
IC3001	E-3	Q3008	E-4		
IC3002	E-3	Q3010	E-4		
IC3003	D-3	Q3012	E-4		
IC3004	D-2	Q3085	E-2		
IC3006	C-5	Q3086	E-5		
IC3007	B-3	Q8021	D-3		
IC3008	E-1				
IC3009	E-2				
IC8001	D-4				
IC8002	D-4				
IC8003	D-5				

11.7. D-Board

D-BOARD(FOIL SIDE)
TZTNP02KNSR (42WP16A, B, E, H, R)
TZTNP01KNSC (42WP16C)



TNPA2243
①
D
SEE REVERSE FOR ORDER NO.
CR NO.9
1 2 3
94V-0
IC201
IC209
IC217
IC213
IC214
IC703
IC704
IC705
IC402
IC403
IC502
IC503
IC506
IC508
IC509
IC516
IC902
IC904
IC906
IC907
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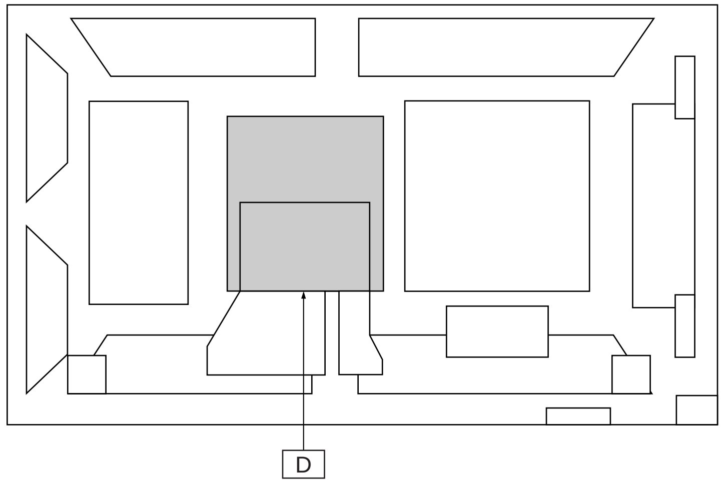
G
H
I



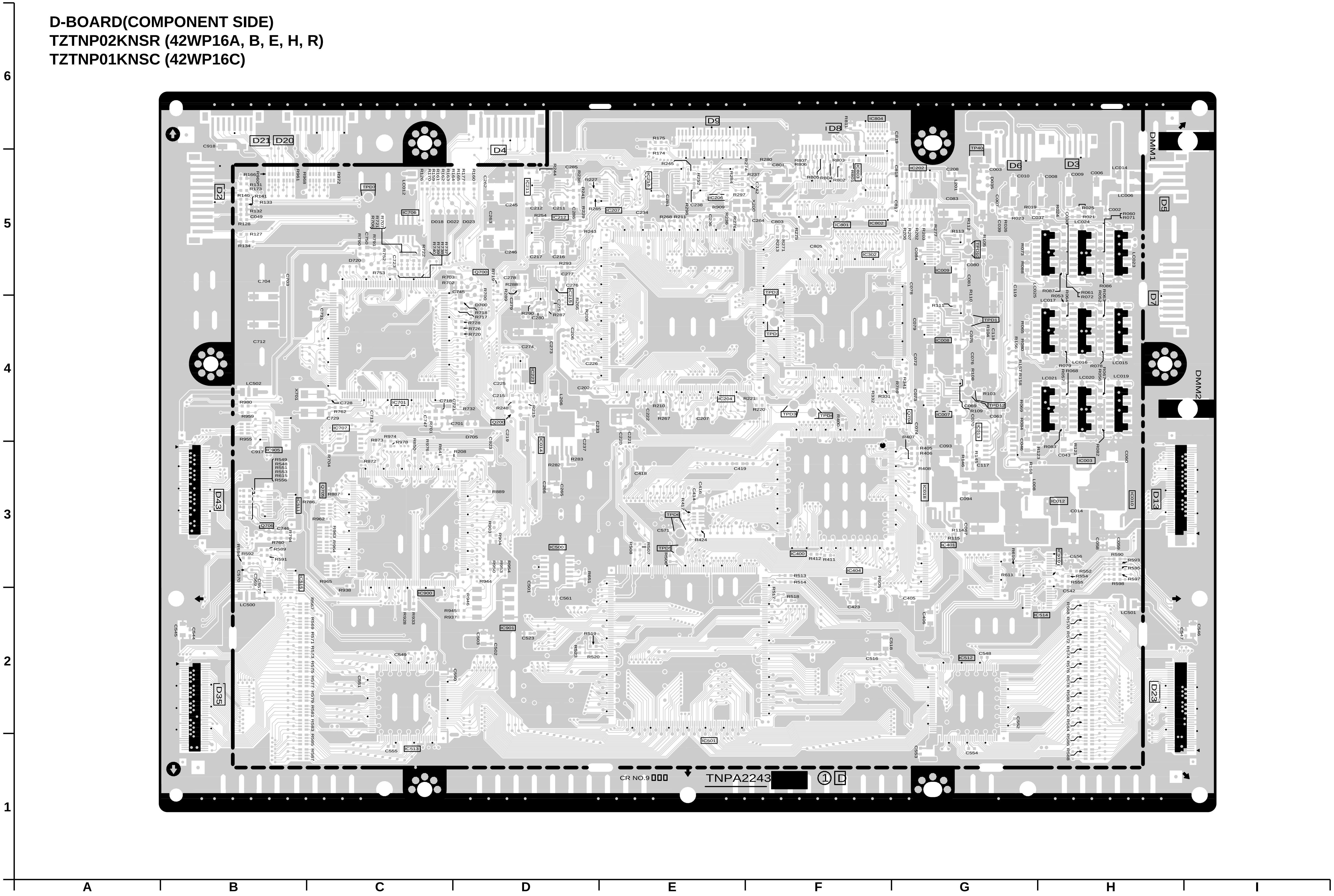
Parts Location

D-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC9000	C-5	Q9001	B-4
IC9001	C-5	Q9002	B-4
IC9002	C-5	Q9003	C-4
IC9004	C-4	Q9005	B-4
IC9005	B-3	Q9006	B-4
IC9019	C-4	Q9007	C-4
IC9020	C-4	Q9009	B-5
IC9021	C-5	Q9010	B-5
IC9200	F-4	Q9011	C-5
IC9201	E-4	Q9013	G-4
IC9209	E-5	Q9201	F-5
IC9213	F-5	Q9202	F-5
IC9214	F-5	Q9701	D-4
IC9217	F-5	Q9702	G-4
IC9402	E-3	Q9703	D-4
IC9403	E-3	Q9801	E-6
IC9502	E-2		
IC9503	D-2		
IC9506	E-2		
IC9507	F-2		
IC9508	C-1		
IC9509	G-2		
IC9516	F-2		
IC9702	G-4		
IC9703	G-5		
IC9704	F-4		
IC9705	G-4		
IC9902	G-3		
IC9903	G-5		
IC9904	G-5		
IC9907	G-3		

Parts Location

D-BOARD (COMPONENT SIDE)	
IC	
IC9003	H-3
IC9007	G-4
IC9008	G-4
IC9009	G-5
IC9010	H-3
IC9012	H-3
IC9013	G-4
IC9013	G-4
IC9014	D-3
IC9018	G-3
IC9202	G-5
IC9204	E-4
IC9206	E-5
IC9207	E-5
IC9211	D-5
IC9212	D-5
IC9215	D-4
IC9216	E-5
IC9223	D-4
IC9302	F-5
IC9400	F-3
IC9401	G-3
IC9404	F-3
IC9501	E-1
IC9510	H-3
IC9511	B-3
IC9513	C-1
IC9515	B-3
IC9600	D-3
IC9614	G-2
IC9701	C-4
IC9706	C-5
IC9707	C-4
IC9801	F-5
IC9802	F-5
IC9803	F-5
IC9804	F-6
IC9812	G-2
IC9900	C-2
IC9901	D-2
IC9905	B-3
TRANSISTOR	
Q9200	D-4
Q9700	D-5
Q9704	G-4
Q9705	C-3
Q9706	B-3
TP	
TP40	G-5
TPD1	F-4
TPD2	F-5
TPD3	F-4
TPD4	F-4
TPD5	E-3
TPD6	E-3
TPD7	C-5
TPD10	G-5
TPD11	G-4
TPD12	G-4

D-BOARD(COMPONENT SIDE)
TZTNP02KNSR (42WP16A, B, E, H, R)
TZTNP01KNSC (42WP16C)


6
5
4
3
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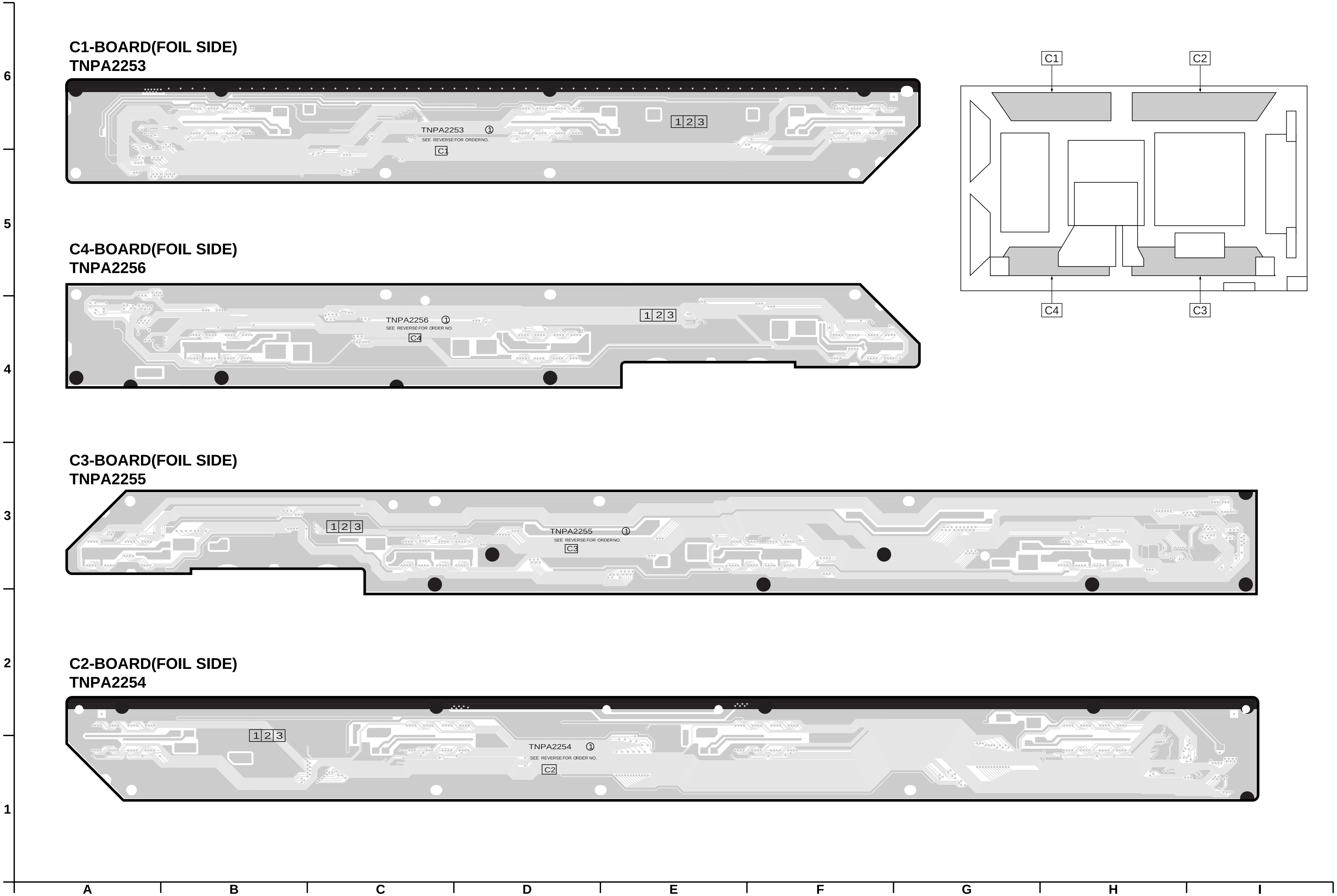
1
A
B
C
D
E
F
G
H
I
D21
D20
D4
D9
D8
D6
D3
D5
D7
D2
D43
D35
D13
D23
DMM1
DMM2
IC804
IC202
IC207
IC212
IC206
IC801
IC802
IC302
IC204
IC701
IC707
IC905
IC500
IC900
IC901
IC400
IC401
IC404
IC501
IC512
IC513
IC514
IC003
IC007
IC008
IC009
IC012
TPD1
TPD2
TPD3
TPD4
TPD5
TPD6
TPD7
TPD12
TP40
CR NO.9
TNPA2243
① D

11.8. C1, C2, C3 and C4-Board



C1-BOARD(FOIL SIDE)
TNPA2253

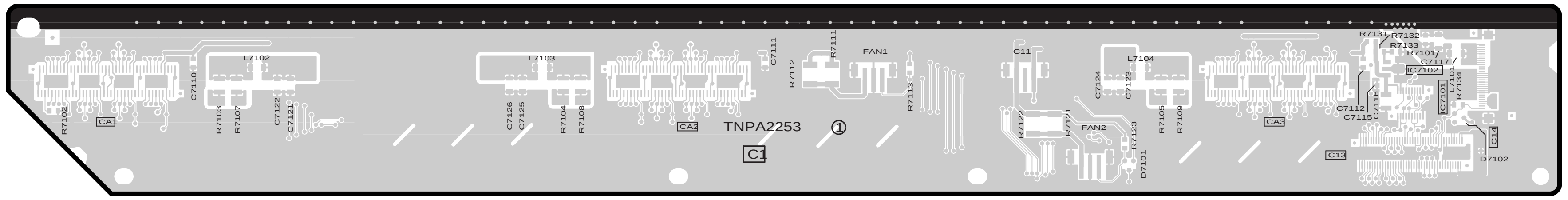
C4-BOARD(FOIL SIDE)
TNPA2256

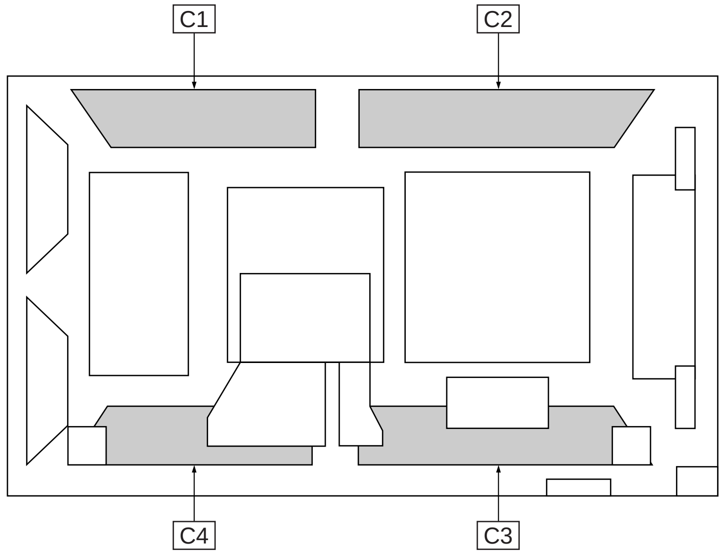
C3-BOARD(FOIL SIDE)
TNPA2255

C2-BOARD(FOIL SIDE)
TNPA2254

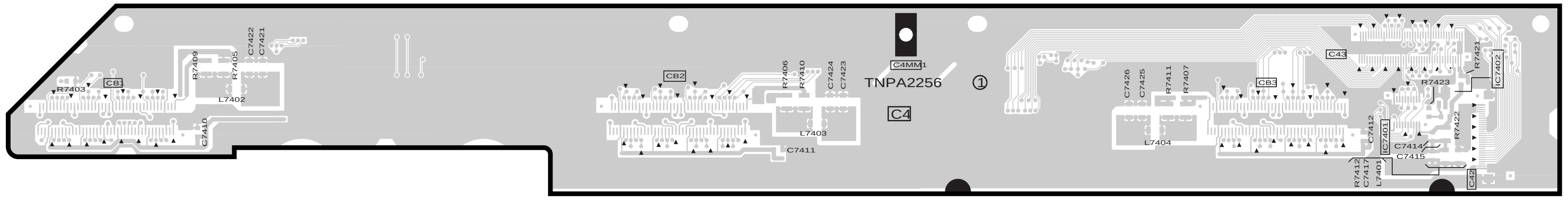
TNPA2253 ①
SEE REVERSE FOR ORDER NO.
C1
1 2 3
TNPA2256 ①
SEE REVERSE FOR ORDER NO.
C4
1 2 3
TNPA2255 ①
SEE REVERSE FOR ORDER NO.
C3
1 2 3
TNPA2254 ①
SEE REVERSE FOR ORDER NO.
C2
1 2 3
C1
C2
C4
C3
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

C1-BOARD(COMPONENT SIDE)
TNPA2253

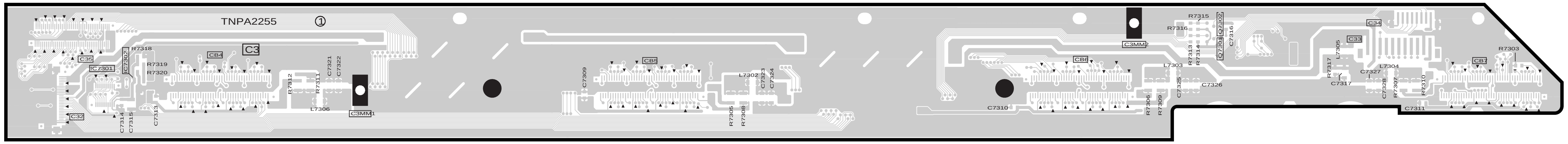

TNPA2253 ①
C1
FAN1
FAN2



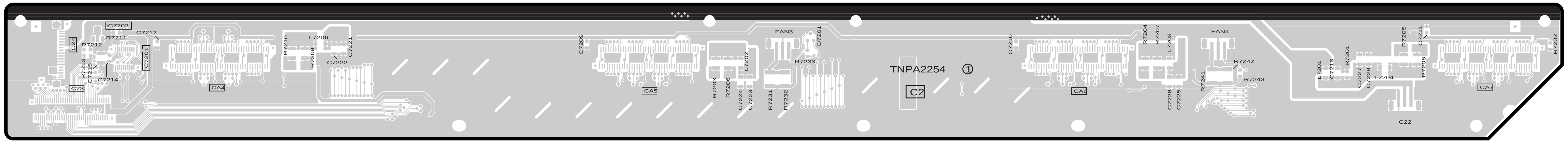
C4-BOARD(COMPONENT SIDE)
TNPA2256


TNPA2256 ①
C4
C4MM1

C3-BOARD(COMPONENT SIDE)
TNPA2255

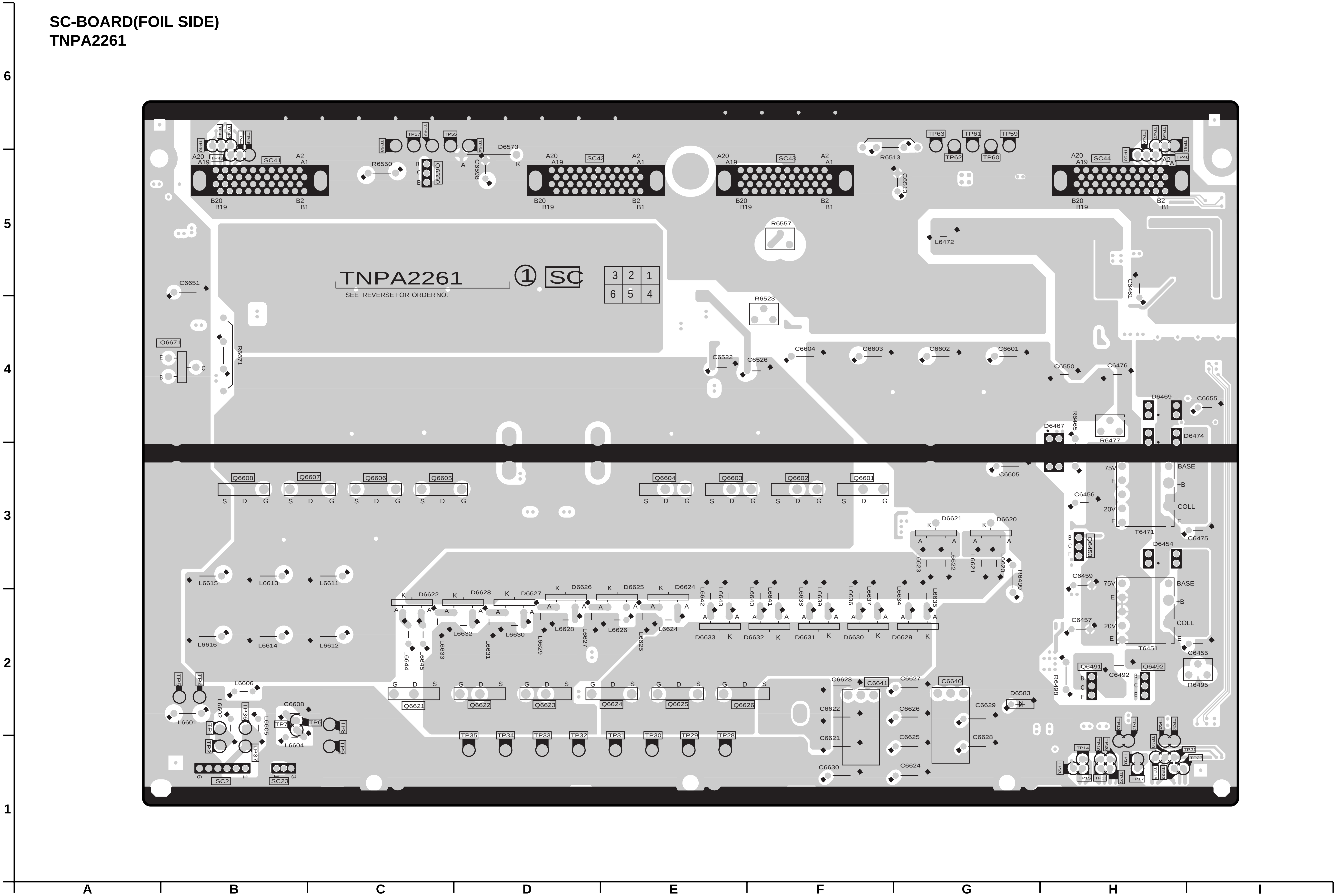

TNPA2255 ①
C3
C3MM1
C3MM2

C2-BOARD(COMPONENT SIDE)
TNPA2254


TNPA2254 ①
C2
FAN3
FAN4

11.9. SC-Board

SC-BOARD(FOIL SIDE)
TNPA2261


6
5
4
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1
A
B
C
D
E
F
G
H
I
TNPA2261
① SC
SEE REVERSE FOR ORDER NO.
3 2 1
6 5 4
SC41
SC42
SC43
SC44
A20
A19
A2
A1
B20
B19
B2
B1
TP57
TP55
TP63
TP61
TP59
TP62
TP60
TP42
TP48
R6550
Q6550
C6598
D6573
R6513
C6513
R6557
L6472
R6523
C6461
C6651
Q6671
R6671
C6522
C6526
C6604
C6603
C6602
C6601
C6550
C6476
D6469
C6655
D6467
R6465
R6477
D6474
C6605
Q6608
Q6607
Q6606
Q6605
Q6604
Q6603
Q6602
Q6601
S
D
G
C6456
75V
20V
BASE
+B
COLL
T6471
C6475
D6621
D6620
Q6453
D6454
L6623
L6622
L6621
L6620
R6499
C6459
C6457
T6451
C6455
L6615
L6613
L6611
L6616
L6614
L6612
D6622
D6628
D6627
D6626
D6625
D6624
L6632
L6630
L6628
L6626
L6624
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L6645
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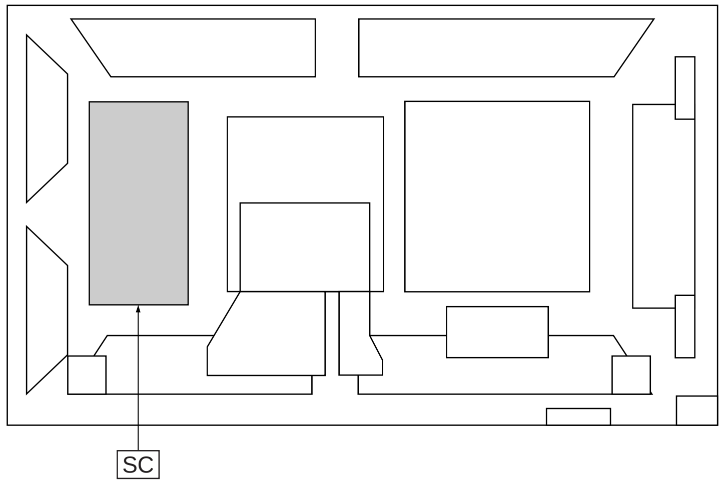
L6627
L6625
L6642
L6643
L6640
L6641
L6638
L6639
L6636
L6637
L6634
L6635
D6633
D6632
D6631
D6630
D6629
Q6621
Q6622
Q6623
Q6624
Q6625
Q6626
C6623
C6641
C6627
C6640
C6622
C6626
C6629
C6621
C6625
C6628
C6630
C6624
D6583
R6498
Q6491
Q6492
C6492
R6495
L6606
L6602
L6601
C6608
L6605
L6604
TP35
TP34
TP33
TP32
TP31
TP30
TP29
TP28
TP14
TP15
TP17
SC2
SC23



Parts Location

SC-BOARD (FOIL SIDE)

TRANSISTOR

Q6453	H-3
Q6491	H-2
Q6492	H-2
Q6550	C-5
Q6601	F-2
Q6602	F-2
Q6603	E-3
Q6604	E-3
Q6605	C-3
Q6606	C-3
Q6607	B-3
Q6608	B-3
Q6621	C-2
Q6622	D-2
Q6623	D-2
Q6624	E-2
Q6625	E-2
Q6626	E-2
Q6671	B-4

TP

TP1	B-2
TP2	B-1
TP4	B-2
TP5	B-2
TP6	B-2
TP7	B-2
TP8	C-2
TP9	C-1
TP10	H-1
TP11	H-1
TP12	H-2
TP13	H-2
TP14	H-1
TP15	H-1
TP16	H-1
TP17	H-1
TP18	H-1
TP19	H-1
TP20	H-1
TP21	H-1
TP22	H-1
TP23	H-1
TP24	H-2
TP25	H-2
TP26	H-1
TP27	H-1
TP28	E-1
TP29	E-1
TP30	E-1
TP31	E-1
TP32	D-1
TP33	D-1
TP34	D-1
TP35	D-1
TP36	B-2
TP37	B-1
TP40	B-6
TP41	B-6
TP42	B-6
TP43	B-5
TP44	B-5
TP45	B-5
TP46	H-6
TP47	H-6
TP48	H-5
TP49	H-5
TP50	H-5
TP51	H-6
TP54	D-6
TP55	C-6
TP56	C-6
TP57	C-6
TP58	C-6
TP59	G-6
TP60	G-5
TP61	G-6
TP62	G-5
TP63	G-6

Parts Location

SC-BOARD (COMPONENT SIDE)

IC

IC6451	B-3
IC6452	C-2
IC6453	B-5
IC6464	B-5
IC6471	B-4
IC6472	C-3
IC6491	B-2
IC6501	B-5
IC6502	B-5
IC6511	C-5
IC6521	E-4
IC6541	E-5
IC6542	B-5
IC6581	C-2
IC6601	F-3
IC6602	F-2
IC6603	I-5
IC6605	B-2
IC6606	B-2

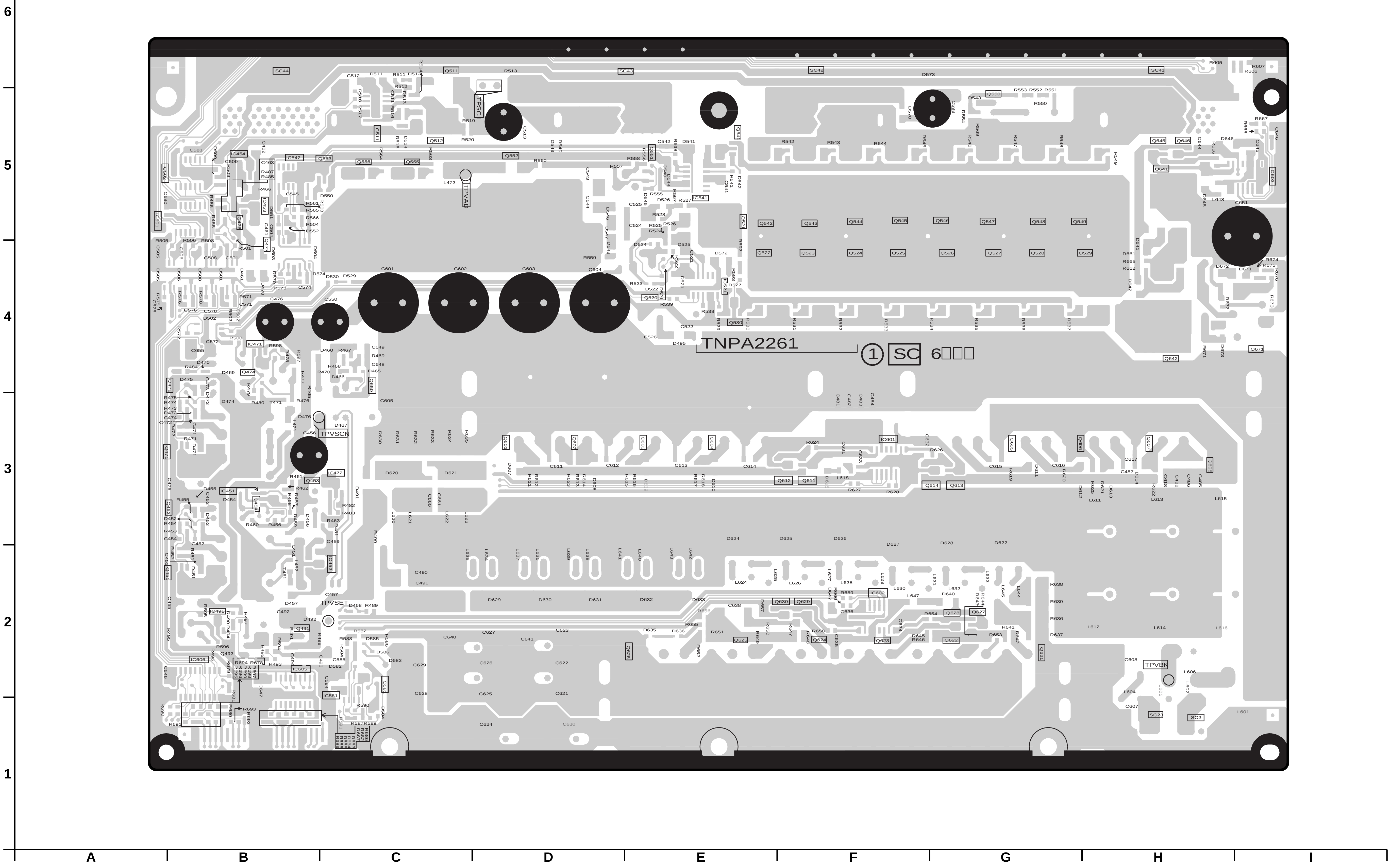
TRANSISTOR

Q6451	B-2
Q6452	B-3
Q6453	B-3
Q6454	B-3
Q6471	B-4
Q6472	B-4
Q6474	B-4
Q6476	B-5
Q6491	B-2
Q6511	C-6
Q6512	C-5
Q6520	E-4
Q6521	E-5
Q6522	E-4
Q6523	F-4
Q6524	F-4
Q6525	F-4
Q6526	G-4
Q6527	G-4
Q6528	G-4
Q6529	H-4
Q6530	E-4
Q6541	E-5
Q6542	E-5
Q6543	F-5
Q6544	F-5
Q6545	F-5
Q6546	G-5
Q6547	G-5
Q6548	G-5
Q6549	H-5
Q6550	G-5
Q6551	E-5
Q6552	D-5
Q6553	C-5
Q6555	C-5
Q6556	C-5
Q6581	C-2
Q6601	D-3
Q6602	D-3
Q6603	E-3
Q6604	E-3
Q6605	G-3
Q6606	H-3
Q6607	H-3
Q6608	H-3
Q6611	F-3
Q6612	F-3
Q6613	G-3
Q6614	F-3
Q6621	G-2
Q6622	G-2
Q6623	F-2
Q6624	F-2
Q6625	E-2
Q6626	E-2
Q6627	G-2
Q6628	G-2
Q6629	F-2
Q6630	F-2
Q6641	H-5
Q6642	H-4
Q6645	H-5
Q6646	H-5
Q6650	C-4
Q6671	I-4

TP

TPSC	D-6
TPVAD	C-5
TPVBK	H-2
TPVSCN	C-3

SC-BOARD(COMPONENT SIDE)
TNPA2261



6
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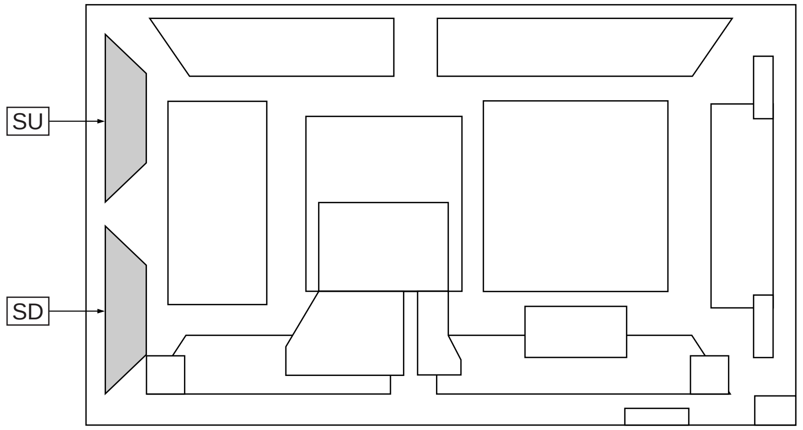
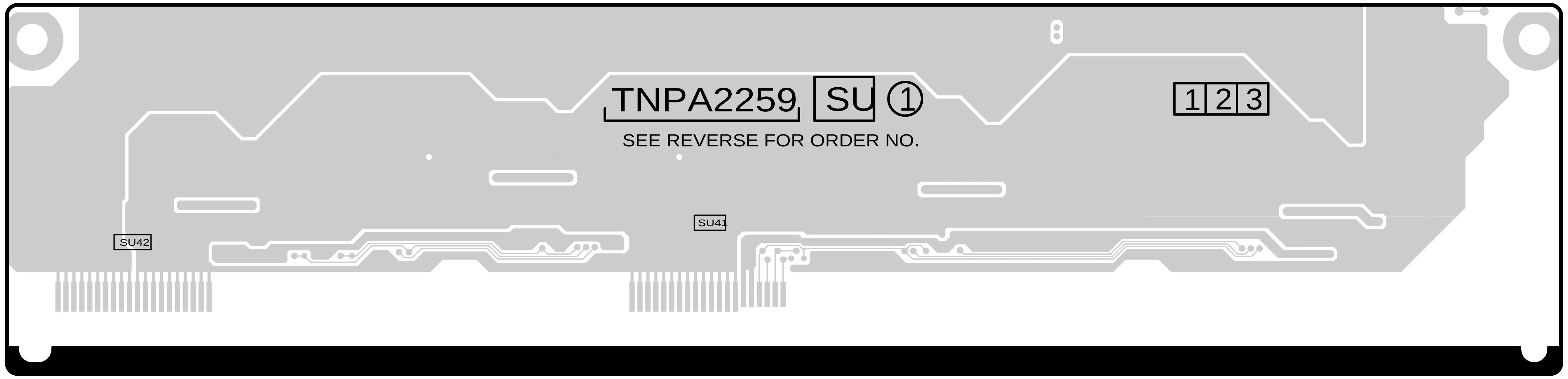
H
I
TNPA2261
① SC 6
TPSC
TPVAD
TPVSCN
TPVSET
TPVBK
SC44
SC43
SC42
SC41
SC2
SC21
C601
C602
C603
C604
L472
IC471
IC472
IC451
IC491
IC606
IC605
IC581
IC601
IC602
IC603

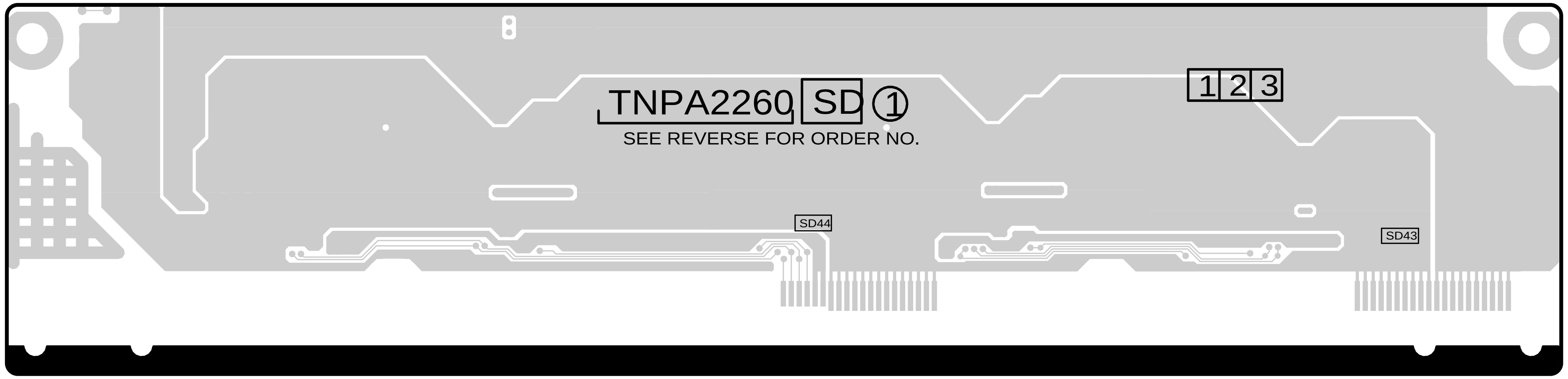
11.10. SU and SD-Board



SU-BOARD(FOIL SIDE)
TNPA2259


TNPA2259 SU ①
SEE REVERSE FOR ORDER NO.
1 2 3
SU41
SU42

SD-BOARD(FOIL SIDE)
TNPA2260


TNPA2260 SD ①
SEE REVERSE FOR ORDER NO.
1 2 3
SD44
SD43

6
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A
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C
D
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G
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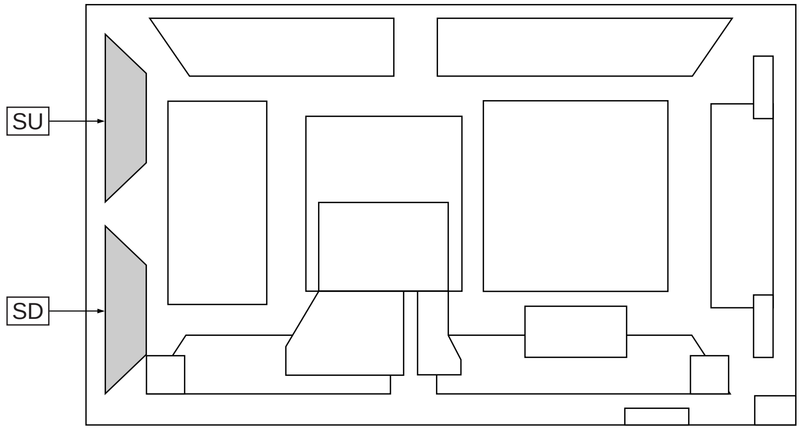
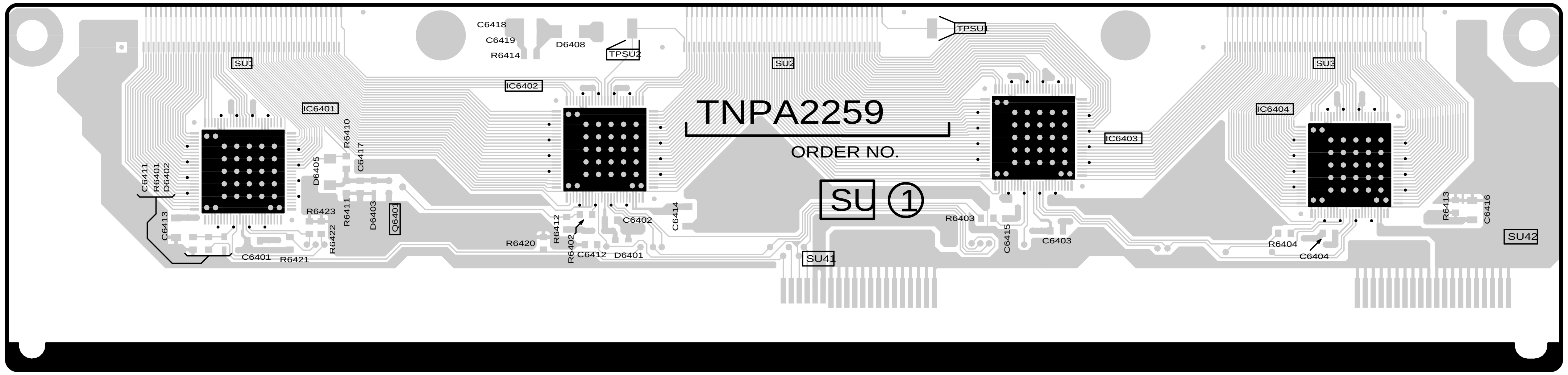
6

5



SU-BOARD(COMPONENT SIDE)
TNPA2259

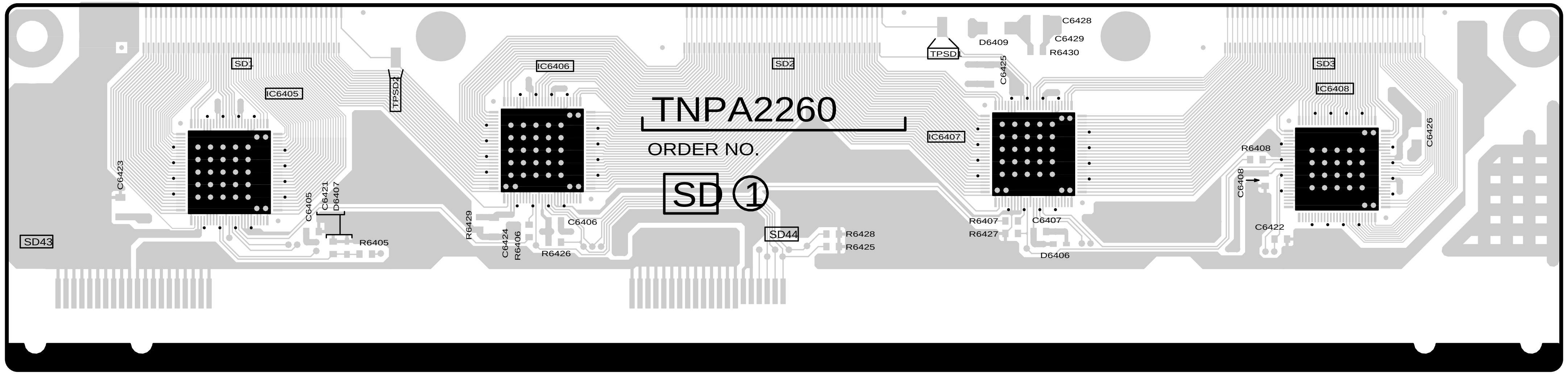
4


C6418
C6419
R6414
D6408
TPSU2
TPSU1
SU1
SU2
SU3
IC6402
IC6401
TNPA2259
ORDER NO.
IC6403
IC6404
C6411
R6401
D6402
D6405
R6410
C6417
C6413
R6423
R6411
D6403
Q6401
R6422
C6401
R6421
R6420
R6412
R6402
C6412
D6401
C6402
C6414
SU41
SU ①
R6403
C6415
C6403
R6404
C6404
R6413
C6416
SU42

3

SD-BOARD(COMPONENT SIDE)
TNPA2260

2

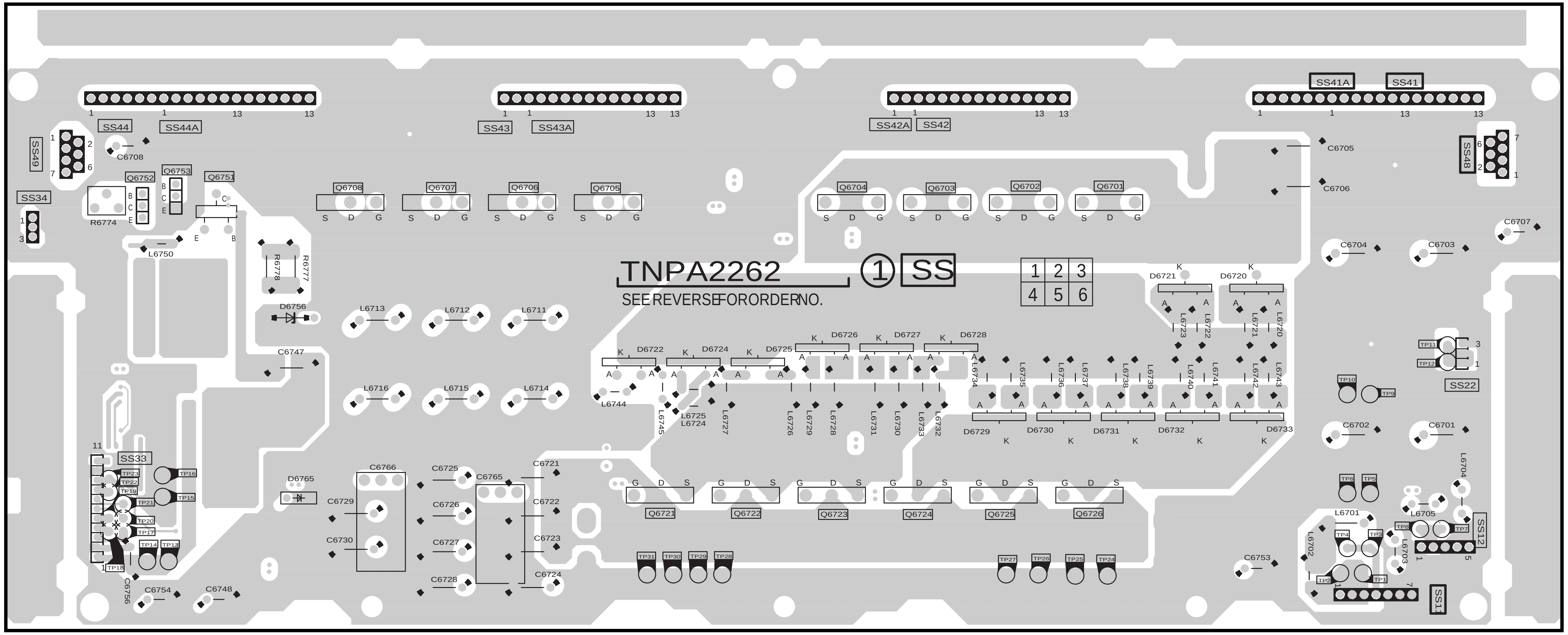

C6428
C6429
R6430
D6409
TPSD1
C6425
SD1
IC6405
TPSD2
IC6406
SD2
SD3
IC6408
TNPA2260
ORDER NO.
IC6407
R6408
C6426
C6423
C6405
C6421
D6407
R6405
SD43
R6429
C6424
R6406
R6426
C6406
SD ①
SD44
R6428
R6425
R6407
R6427
C6407
D6406
C6408
C6422

1

A B C D E F G H I

11.11. SS, SS2 and SS3-Board

SS-BOARD(FOIL SIDE)
TNPA2262


TNPA2262 ① SS
SEE REVERSE FOR ORDER NO.
1 2 3
4 5 6
SS44
SS44A
SS43
SS43A
SS42A
SS42
SS41A
SS41
SS49
SS34
SS48
SS33
SS22
SS12
SS11
C6708
Q6752
Q6753
Q6751
R6774
L6750
R6778
R6777
Q6708
Q6707
Q6706
Q6705
Q6704
Q6703
Q6702
Q6701
C6705
C6706
C6707
C6704
C6703
D6721
D6720
D6756
L6713
L6712
L6711
C6747
L6716
L6715
L6714
L6744
D6722
D6724
D6725
D6726
D6727
D6728
L6745
L6725
L6724
L6727
L6726
L6729
L6728
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L6733
L6732
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L6736
L6737
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L6741
L6742
L6743
L6723
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D6729
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D6733
C6702
C6701
L6704
D6765
C6766
C6725
C6765
C6721
C6729
C6726
C6722
C6730
C6727
C6723
C6728
C6724
C6756
C6754
C6748
Q6721
Q6722
Q6723
Q6724
Q6725
Q6726
C6753
L6701
L6702
L6703
L6705
6
5
4
3
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1
A
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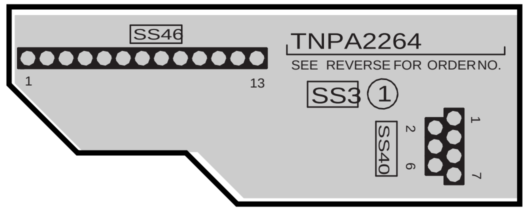
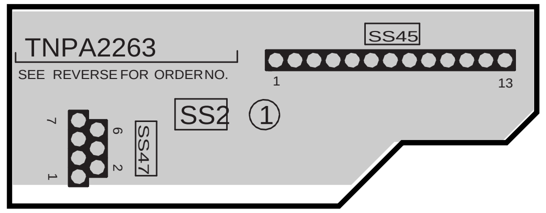
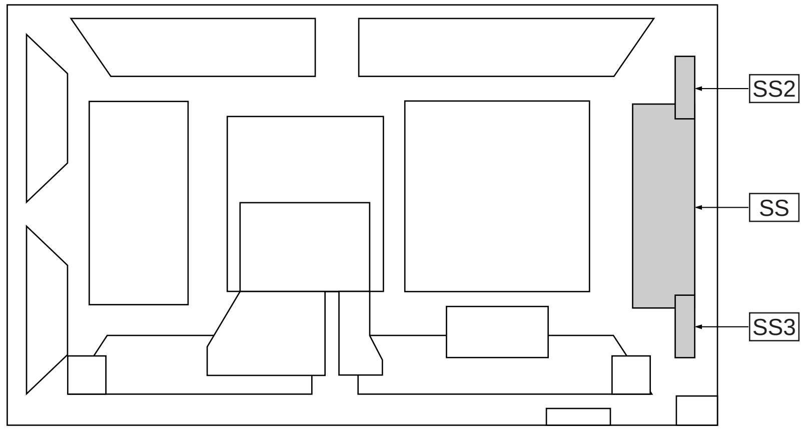
I

SS3-BOARD(FOIL SIDE)
TNPA2264


SS46
TNPA2264
SEE REVERSE FOR ORDER NO.
SS3 ①
SS40
1
13

SS2-BOARD(FOIL SIDE)
TNPA2263


TNPA2263
SEE REVERSE FOR ORDER NO.
SS45
SS2 ①
SS47
1
13



Parts Location

SS-BOARD (FOIL SIDE)

TRANSISTOR	
Q6701	G-5
Q6702	F-5
Q6703	F-5
Q6704	F-5
Q6705	D-5
Q6706	D-5
Q6707	C-5
Q6708	C-5
Q6721	D-3
Q6722	E-3
Q6723	E-3
Q6724	F-3
Q6725	F-3
Q6726	G-3
Q6751	B-5
Q6752	B-5
Q6753	B-5

TP	
TP1	H-3
TP2	H-3
TP3	H-3
TP4	H-3
TP5	H-3
TP6	H-3
TP7	I-3
TP8	H-3
TP9	H-4
TP10	H-4
TP11	I-4
TP12	I-4
TP13	B-2
TP14	B-2
TP15	B-2
TP16	B-2
TP17	B-2
TP18	B-2
TP19	B-2
TP20	B-2
TP22	B-2
TP23	B-2
TP24	G-3
TP25	G-3
TP26	F-3
TP27	F-3
TP28	E-3
TP29	E-3
TP30	E-3
TP31	D-3

Parts Location

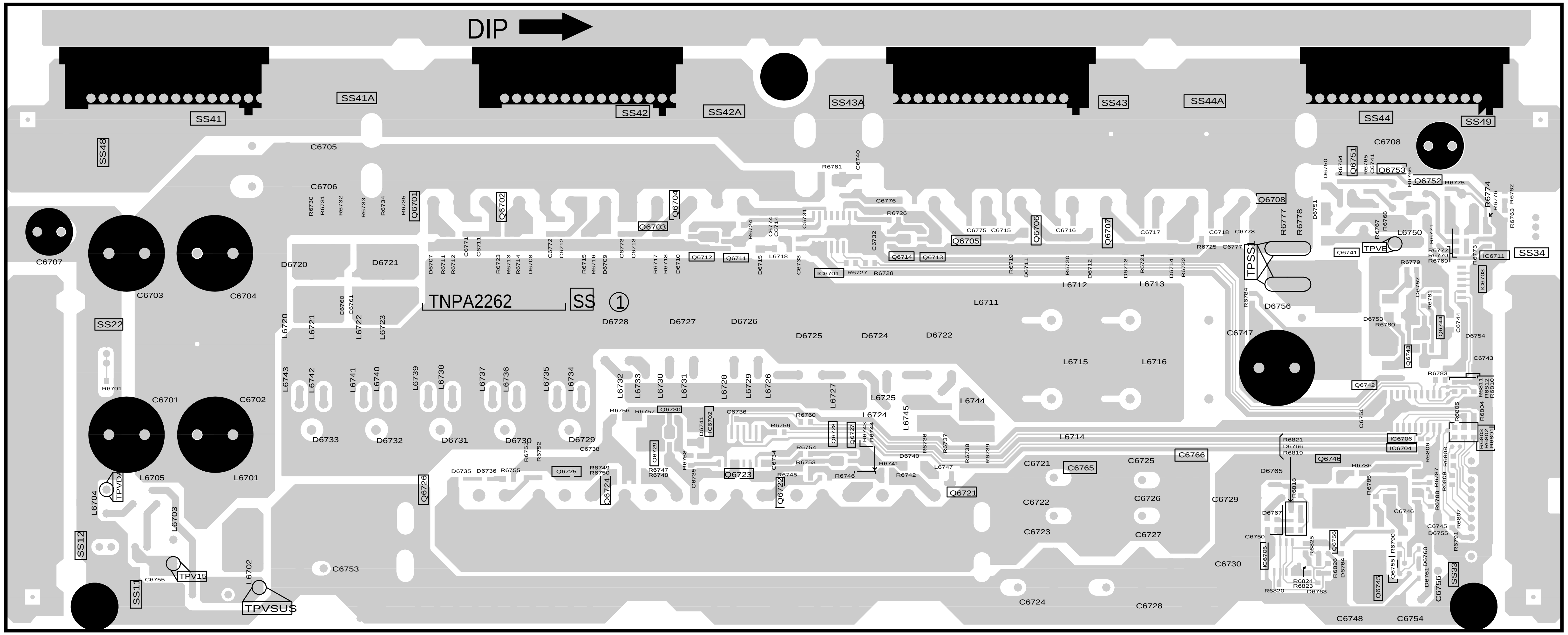
SS-BOARD (COMPONENT SIDE)

IC	
IC6704	H-3
IC6705	H-3
IC6706	H-4
IC6755	H-3

TRANSISTOR	
Q6701	C-5
Q6702	D-5
Q6703	D-5
Q6704	D-5
Q6705	F-5
Q6706	F-5
Q6707	G-5
Q6708	H-5
Q6713	F-5
Q6714	F-5
Q6721	F-3
Q6722	E-3
Q6723	E-3
Q6724	D-3
Q6725	D-3
Q6726	C-3
Q6729	D-3
Q6730	D-4
Q6741	H-5
Q6742	H-4
Q6743	H-4
Q6745	H-3
Q6746	H-3
Q6751	H-5
Q6752	H-2
Q6753	H-5
Q6756	H-3

TP	
TPSS	H-4
TPV15	B-3
TPVDA	B-3
TPVE	H-5
TPVSUS	B-3

SS-BOARD(COMPONENT SIDE)
TNPA2262


DIP
SS41A
SS41
SS42
SS42A
SS43A
SS43
SS44A
SS44
SS49
SS48
SS22
SS12
SS11
SS34
SS33
TNPA2262
SS ①
TPVDA
TPV15
TPVSUS
TPSS
TPVE
C6701
C6702
C6703
C6704
C6705
C6706
C6707
C6708
C6721
C6722
C6723
C6724
C6725
C6726
C6727
C6728
C6729
C6730
C6747
C6748
C6753
C6754
C6755
C6756
C6765
C6766
D6720
D6721
D6722
D6724
D6725
D6726
D6727
D6728
D6729
D6730
D6731
D6732
D6733
D6756
L6701
L6702
L6703
L6704
L6705
L6711
L6712
L6713
L6714
L6715
L6716
L6720
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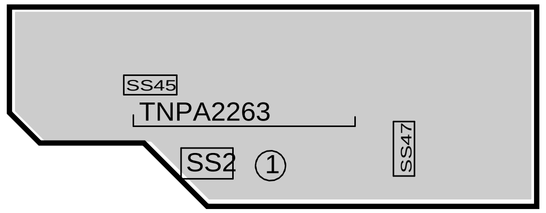
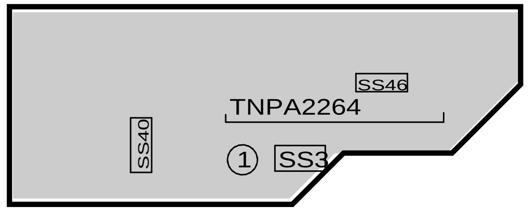
L6735
L6736
L6737
L6738
L6739
L6740
L6741
L6742
L6743
L6744
L6745
L6750
Q6701
Q6702
Q6703
Q6704
Q6705
Q6706
Q6707
Q6708
Q6712
Q6711
Q6714
Q6713
Q6721
Q6722
Q6723
Q6724
Q6725
Q6726
Q6730
Q6741
Q6742
Q6746
Q6751
Q6752
Q6753
IC6701
IC6704
IC6706
IC6711
R6701
R6761
R6774
R6777
R6778
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

SS2-BOARD(COMPONENT SIDE)
TNPA2263

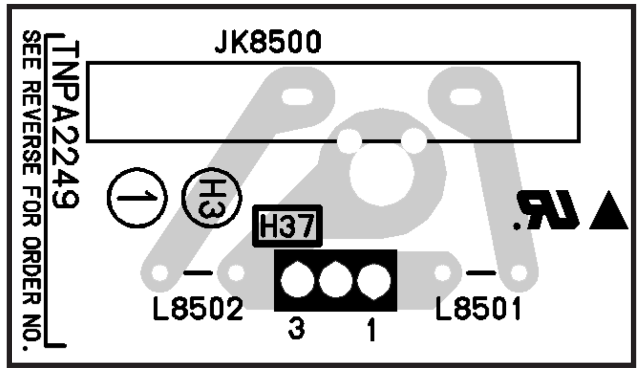

SS45
TNPA2263
SS2 ①
SS47

SS3-BOARD(COMPONENT SIDE)
TNPA2264

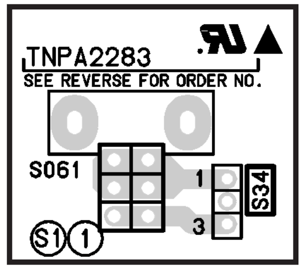

SS46
TNPA2264
SS40
① SS3

11.12. H3, S1 and V1-Board

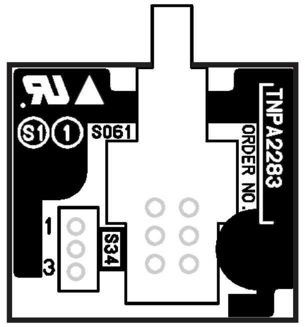
H3-BOARD
TNPA2249

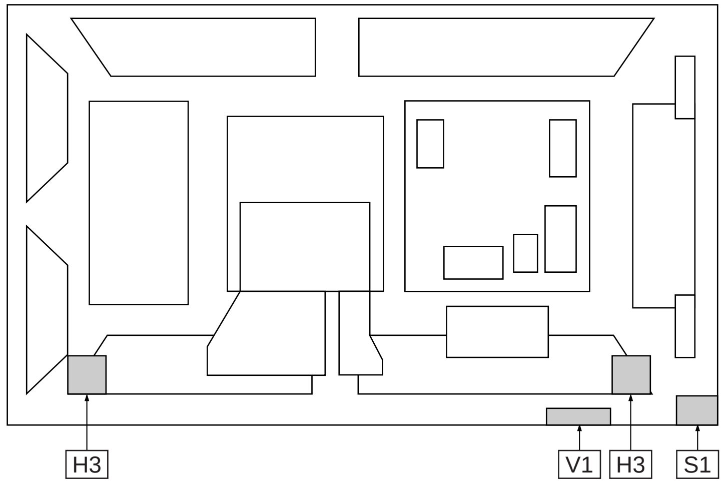

JK8500
TNPA2249
SEE REVERSE FOR ORDER NO.
① H3
H37
L8502
3
1
L8501

S1-BOARD(FOIL SIDE)
TNPA2283

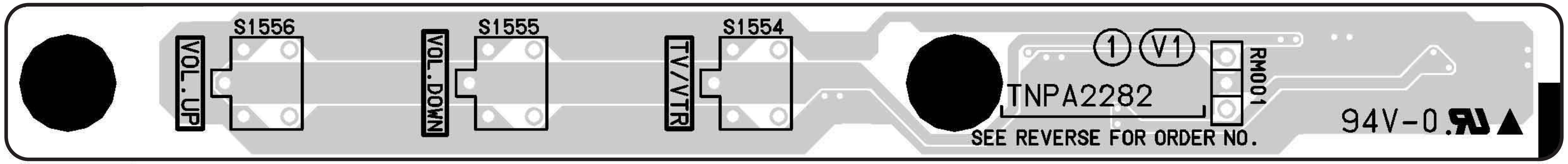

TNPA2283
SEE REVERSE FOR ORDER NO.
S061
1
S34
3
S1 ①

S1-BOARD(COMPONENT SIDE)
TNPA2283

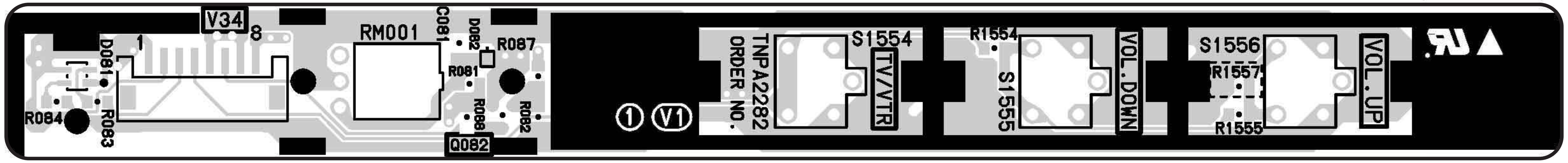

S1 ①
S061
TNPA2283
ORDER NO.
1
3
S34



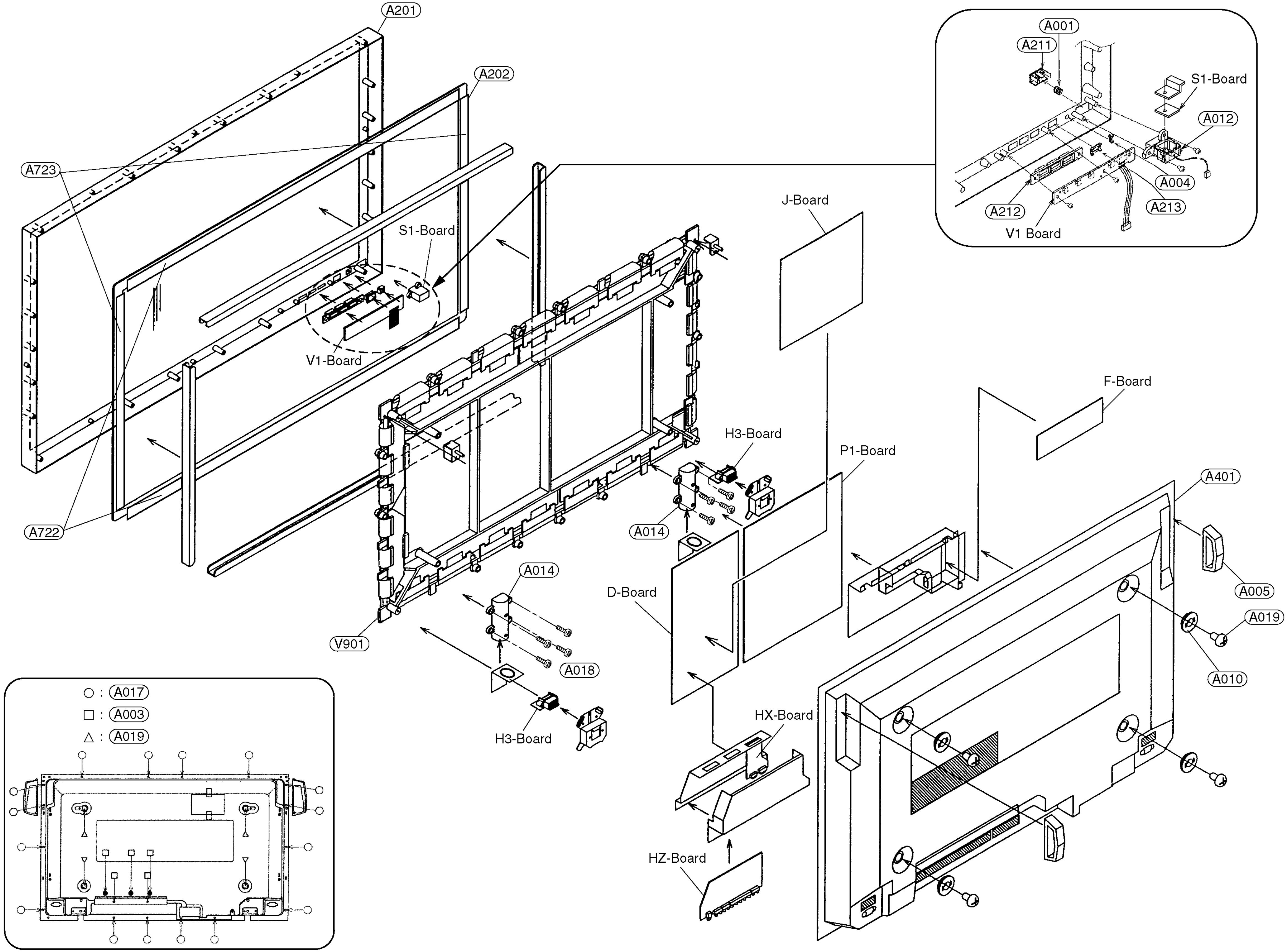
V1-BOARD(FOIL SIDE)
TNPA2282

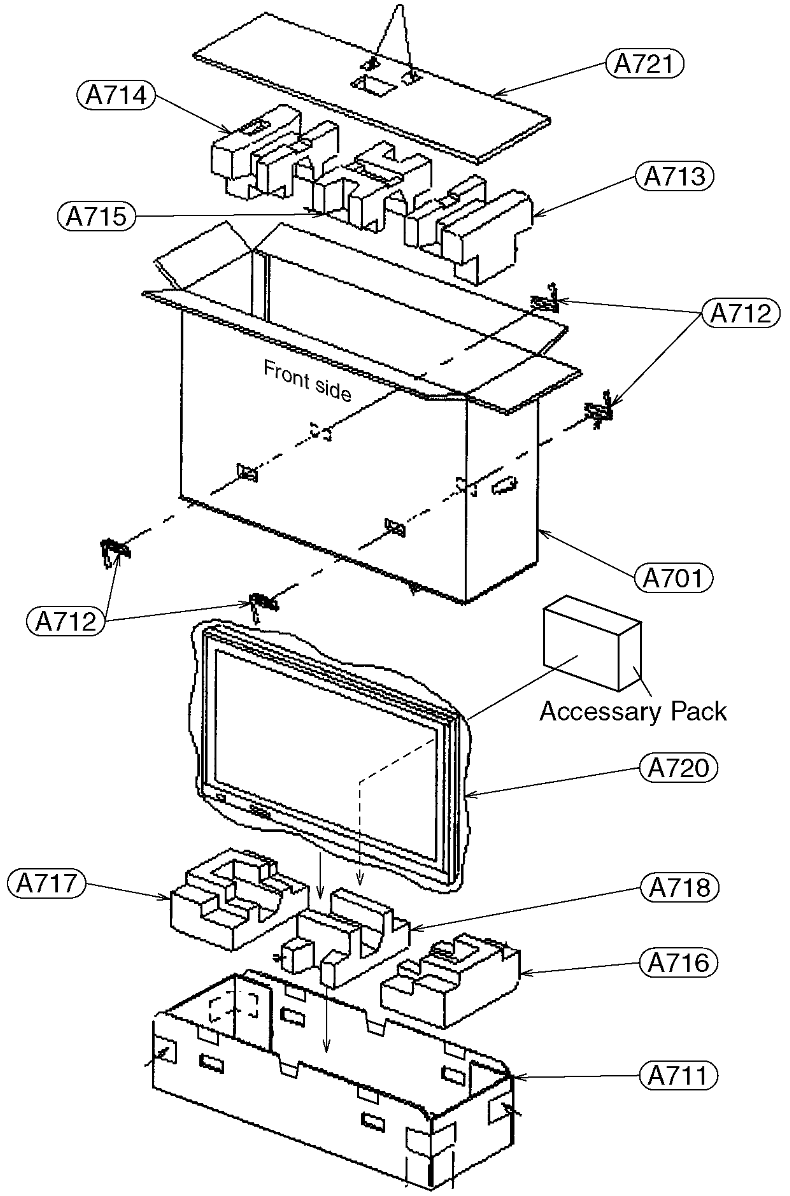

S1556
VOL.UP
S1555
VOL.DOWN
S1554
TV/VTR
① V1
RM001
TNPA2282
SEE REVERSE FOR ORDER NO.
94V-0

V1-BOARD(COMPONENT SIDE)
TNPA2282

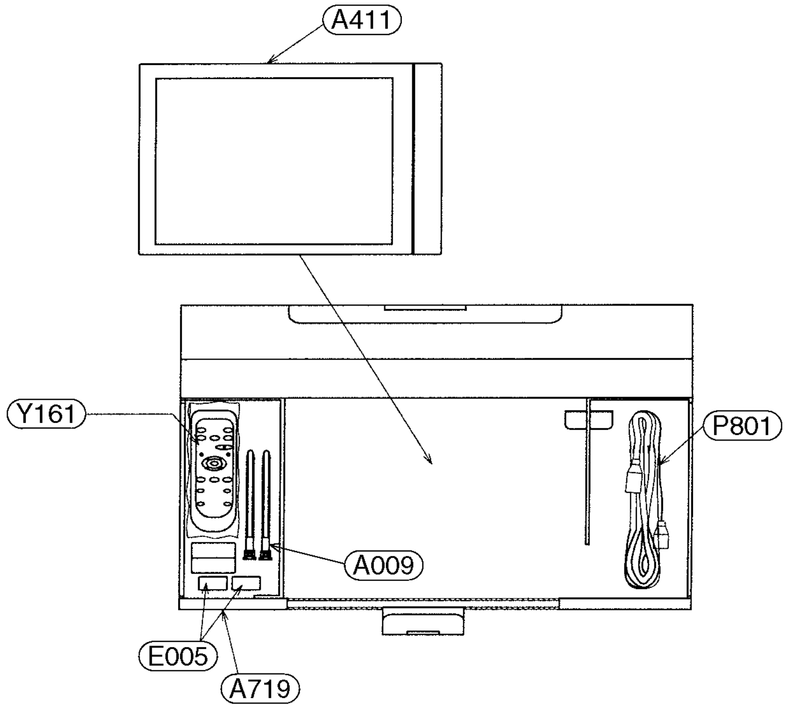

V34
8
1
D081
R084
R083
RM001
C081
D082
R087
R081
R086
R082
Q082
① V1
TNPA2282
ORDER NO.
S1554
TV/VTR
R1554
S1555
VOL.DOWN
S1556
R1557
R1555
VOL.UP

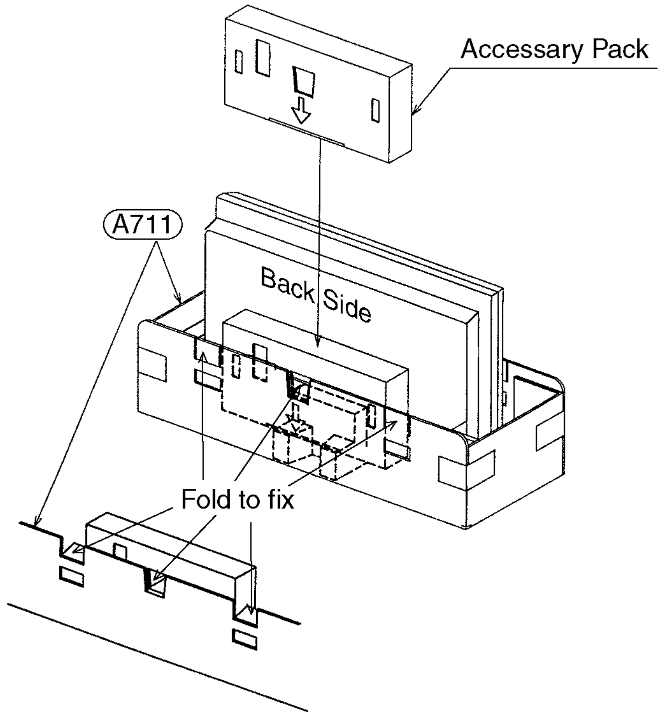
13 Mechanical Parts Location


A201
A202
A723
S1-Board
V1-Board
A722
J-Board
A001
A211
S1-Board
A012
A004
A212
A213
V1 Board
F-Board
H3-Board
P1-Board
A401
A014
A014
D-Board
V901
A018
A005
A019
A010
H3-Board
HX-Board
HZ-Board
○ : A017
□ : A003
△ : A019


A721
A714
A713
A715
A712
Front side
A712
A701
A712
Accessary Pack
A720
A717
A718
A716
A711

•Accessary Pack


A411
Y161
P801
A009
E005
A719


Accessary Pack
A711
Back Side
Fold to fix

14 Mechanical Replacement Parts List

Loc. No.	Part No.	Description	Reference No.	Remarks
A001	72000661	SPRING, TESD031	TESD031	
A003	72000663	SCREW, THEL023Z	THEL023Z	
A004	72000664	LED PANEL, TKKC5105	TKKC5105	
A005	72000665	HANDLE, TKRA20501	TKRA20501	
A009	72001052	FIXING BAND, TMME187	TMME187	
A010	72001051	SPACER, TMMD006	TMMD006	
A012	72000672	POWER BUTTOM BRACKET, TMWC006-1	TMWC006-1	
A014	72001053	STAND BRACKET, TXFMZ010JAS	TXFMZ010JAS	
A017	72001012	SCREW, XYF4+FL43FZ	XYF4+FL43FZ	
A018	72001017	SCREW, XYN5+C15	XYN5+C15	
A019	72000679	SCREW, XYN8+F20FZ	XYN8+F20FZ	
A201	72001029	ESCUTCHEON , TTEA0076	TTEA0076	42WP16A,B ,E,H,R
A201	72001046	ESCUTCHEON , TTEA0077	TTEA0077	42WP16C
A202	72001020	FRONT GLASS, TKGA5066	TKGA5066	42WP16A,B ,E,H,R
A202	72001042	FRONT GLASS, TKGA5067	TKGA5067	42WP16C
A211	72000708	POWER BUTTON, TBXA28205	TBXA28205	
A212	72000709	HINDGE BUTTON, TBXA28505A	TBXA28505A	
A213	72000710	REMOCON RECEIVER PANEL, TKPA43801	TKPA43801	
A401	72001030	REAR COVER, TTUA0483	TTUA0483	42WP16A,H ,R
A401	72001038	REAR COVER, TTUA0504	TTUA0504	42WP16B,E
A401	72001047	REAR COVER, TTUA0489	TTUA0489	42WP16C
A411	72001406	FUN BAG, TQZC165	TQZC165	42WP16C
A411	72001024	FUN BAG, TQZC156	TQZC156	42WP16A,H ,R
A411	72001032	FUN BAG, TQZC164	TQZC164	42WP16B,E
A701	72001023	CARTON BOX, TPCA95845	TPCA95845	42WP16A
A701	72001031	CARTON BOX, TPCA95846	TPCA95846	42WP16B
A701	72001039	CARTON BOX, TPCA95840	TPCA95840	42WP16E
A701	72001040	CARTON BOX, TPCA95844	TPCA95844	42WP16H
A701	72001041	CARTON BOX, TPCA95838	TPCA95838	42WP16R
A701	72001045	CARTON BOX, TPCA95839	TPCA95839	42WP16C
A711	72001054	CARTON BOX(BOTTOM), TPCA95901A	TPCA95901A	
A712	72000681	JOINT, TPD169487	TPD169487	
A713	72001055	CUSHION(UPPER RIGHT), TPDA0510-1	TPDA0510-1	
A714	72001056	CUSHION(UPPER LEFT), TPDA0511-1	TPDA0511-1	
A715	72000684	CUSHION(UPPER CENTER), TPDA0512	TPDA0512	
A716	72000685	CUSHION(BOTTOM RIGHT), TPDA0513	TPDA0513	
A717	72000686	CUSHION(BOTTOM LEFT), TPDA0514	TPDA0514	
A718	72001057	CUSHION(BOTTOM CENTER), TPDA0515-1	TPDA0515-1	
A719	72001059	PAPER BOX, TPDF0737	TPDF0737	
A720	72000689	PROTECT COVER, TPEH007-3	TPEH007-3	
A721	72001058	CUSHION, TPDF0596	TPDF0596	
A722	72001021	CUSHION, TMKG288	TMKG288	42WP16A,B ,E,H,R
A722	72001043	CUSHION, TMKG250	TMKG250	42WP16C
A723	72001022	CUSHION, TMKG289	TMKG289	42WP16A,B ,E,H,R
A723	72001044	CUSHION, TMKG251-1	TMKG251-1	42WP16C

Loc. No.	Part No.	Description	Reference No.	Remarks
E005	72001049	FERRITE CORE, J0KF00000018	J0KF00000018	
F801	72000743	FUSE, K5Y802B00001	K5Y802B00001	
P801	72000716	AC POWER CORD, K2CT3DH00007	K2CT3DH00007	42WP16B,H
P801	72000723	AC POWER CORD, K2CN3DH00001	K2CN3DH00001	42WP16R,E
P801	72000732	AC POWER CORD, K2CK3DH00007	K2CK3DH00007	42WP16C
P801	72000734	AC POWER CORD, K2CK3DH00002	K2CK3DH00002	42WP16A
P802	72000700	AC INLET, K2AH3H000018	K2AH3H000018	
V901	72001050	PLASMA DISPLAY PANEL, MC106W36P4	MC106W36P4	
Y101	72001025	INSTRUCTION BOOK(ENGLISH), TQZW158	TQZW158	42WP16A,C ,H,R
Y101	72001033	INSTRUCTION BOOK(ENGLISH), TQZW163	TQZW163	42WP16B,E
Y102	72001026	INSTRUCTION BOOK(CHINESE), TQZW159	TQZW159	42WP16A,C ,H,R
Y103	72001027	INSTRUCTIOR BOOK(ARABIAN), TQZW160	TQZW160	42WP16A,C ,H,R
Y104	72001028	INSTRUCTION BOOK(RUSSIAN), TQZW161	TQZW161	42WP16A,C ,H,R
Y105	72001034	INSTRUCTION BOOK(FRENCH), TQZW164	TQZW164	42WP16B,E
Y106	72001035	INSTRUCTION BOOK(GARMEN), TQZW165	TQZW165	42WP16B,E
Y107	72001036	INSTRUCTION BOOK(ITALIAN), TQZW166	TQZW166	42WP16B,E
Y108	72001037	INSTRUCTION BOOK(SPANISH), TQZW167	TQZW167	42WP16B,E
Y161	72000703	REMOTE CONTROL, EUR646527	EUR646527	

15 Replacement Parts List

15.1. Relpacement Parts List Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer’s specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C : Carbon	F : ±1%
F : Fuse	G : ±2%
M : Metal Oxide	J : ±5%
Metal FIlm	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

Type	Allowance
C : Ceramic	C : ±0.25pF
E : Electrolytic	D : ±0.5pF
P : Polyester	F : ±1pF
Polyprop	G : ±3pF
lene	J : ±5pF
T : Tantalum	K : ±10pF
	L : ±15pF
	M : ±20pF
	P : +100%, -0%
	Z : +80%, -20%

15.2. Electrical Replacement Parts List

Loc. No.	Part No	Description	Reference No.	Remarks
C081	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C1001	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C1002	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C1003	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C1004	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C1005	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C1006	72000775	CAPACITOR, E 1.5UF, 5.5V	EECS5R5V155	
C1007	72000227	CAPACITOR, C 33PF, J, 50V	ECJ1XC1H330J	
C1008	72000227	CAPACITOR, C 33PF, J, 50V	ECJ1XC1H330J	
C1009	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C1010	72000776	CAPACITOR, C 0.056UF, K, 50V	ECJ2XB1H563K	
C2312	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C2313	72000192	CAPACITOR, E 47UF, 50V	ECA1HHG470	
C2314	72000193	CAPACITOR, E 47UF, 16V	ECA1CHG470	
C2316	72000194	CAPACITOR, P 0.47UF, J, 50V	ECQV1H474JM	
C2317	72000194	CAPACITOR, P 0.47UF, J, 50V	ECQV1H474JM	
C2318	72000195	CAPACITOR, C 560PF, J, 50V	ECJ2XC1H561J	
C2319	72000195	CAPACITOR, C 560PF, J, 50V	ECJ2XC1H561J	
C2320	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2321	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2322	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2323	72000908	CAPACITOR, E 220UF, 50V	ECA1HHG221	
C2324	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2325	72000908	CAPACITOR, E 220UF, 50V	ECA1HHG221	
C2326	72000198	CAPACITOR, C 220PF, J, 50V	ECJ2XC1H221J	
C2327	72000198	CAPACITOR, C 220PF, J, 50V	ECJ2XC1H221J	
C2328	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2329	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2330	72000199	CAPACITOR, C 4700PF, K, 50V	ECJ2XB1H472K	
C2331	72000200	CAPACITOR, C 100PF, J, 50V	ECJ2XC1H101J	
C2332	72000199	CAPACITOR, C 4700PF, K, 50V	ECJ2XB1H472K	
C2333	72000200	CAPACITOR, C 100PF, J, 50V	ECJ2XC1H101J	
C2334	72000201	CAPACITOR, C 2.2UF, 16V	TCUY1C225KBM	
C2335	72000201	CAPACITOR, C 2.2UF, 16V	TCUY1C225KBM	
C2336	72000202	CAPACITOR, C 0.047UF, K, 50V	ECJ2XB1H473K	
C2337	72000202	CAPACITOR, C 0.047UF, K, 50V	ECJ2XB1H473K	
C2338	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2339	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2340	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2341	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2342	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2343	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2344	72000204	CAPACITOR, E 1000UF, 20V	EEUGZ1D102SB	
C2345	72000204	CAPACITOR, E 1000UF, 20V	EEUGZ1D102SB	
C2346	72000204	CAPACITOR, E 1000UF, 20V	EEUGZ1D102SB	
C2347	72000204	CAPACITOR, E 1000UF, 20V	EEUGZ1D102SB	
C2348	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C2349	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2350	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2417	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2419	72000212	CAPACITOR, E 10UF, 16V	EEVHB1C100	
C2422	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C2423	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C2426	72000209	CAPACITOR, C 0.015UF, K, 50V	ECJ2XB1H153K	
C2427	72000212	CAPACITOR, E 10UF, 16V	EEVHB1C100	
C2429	72000912	CAPACITOR, E 100UF, 16V	ECA1CHG101	
C2431	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C2433	72000215	CAPACITOR, C 0.039UF, K, 50V	ECJ2XB1H393K	
C2434	72000216	CAPACITOR, C 0.022UF, K, 50V	ECJ2XB1H223K	
C2435	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C2436	72000211	CAPACITOR, C 1UF, 16V	TCUY1C105KBM	
C2437	72000912	CAPACITOR, E 100UF, 16V	ECA1CHG101	
C2438	72000912	CAPACITOR, E 100UF, 16V	ECA1CHG101	
C2440	72000217	CAPACITOR, C 4.7UF, 16V	TCUY1C475ZFM	
C2441	72000217	CAPACITOR, C 4.7UF, 16V	TCUY1C475ZFM	
C2442	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C2450	72000212	CAPACITOR, E 10UF, 16V	EEVHB1C100	
C2451	72000218	CAPACITOR, E 4.7UF, 25V	EEVHB1E4R7	
C2452	72000219	CAPACITOR, C 5600PF, K, 50V	ECJ2XB1H562K	
C2453	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C2454	72000218	CAPACITOR, E 4.7UF, 25V	EEVHB1E4R7	
C2455	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C2457	72000218	CAPACITOR, E 4.7UF, 25V	EEVHB1E4R7	
C2458	72000220	CAPACITOR, C 1000PF, J, 50V	ECJ2XC1H102J	
C2459	72000211	CAPACITOR, C 1UF, 16V	TCUY1C105KBM	
C2460	72000202	CAPACITOR, C 0.047UF, K, 50V	ECJ2XB1H473K	
C2461	72000220	CAPACITOR, C 1000PF, J, 50V	ECJ2XC1H102J	
C2463	72000202	CAPACITOR, C 0.047UF, K, 50V	ECJ2XB1H473K	

Loc. No.	Part No	Description	Reference No.	Remarks
C2466	72000211	CAPACITOR, C 1UF, 16V	TCUY1C105KBM	
C2467	72000211	CAPACITOR, C 1UF, 16V	TCUY1C105KBM	
C2480	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C2484	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3001	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3002	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3003	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3004	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3005	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3006	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3007	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3008	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3009	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3010	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3011	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3012	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3013	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3014	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3015	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3016	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3017	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3018	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3019	72000777	CAPACITOR, E 47UF, 16V	ECEA1CKA470	
C3020	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3021	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3022	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C3023	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3024	72000196	CAPACITOR, C 0.1UF, Z, 50V	ECJ2VF1H104Z	
C3028	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3029	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3030	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3031	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3032	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3033	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3034	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3035	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3036	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3037	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3038	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3039	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	

Loc. No.	Part No	Description	Reference No.	Remarks
C3042	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3043	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C3044	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3045	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C3046	72000203	CAPACITOR, C 4.7UF, Z, 16V	ECJ3XF1C475Z	
C3047	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3048	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3049	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3050	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3301	72000222	CAPACITOR, C 0.1UF, K, 25V	ECJ2XB1E104K	
C3302	72000222	CAPACITOR, C 0.1UF, K, 25V	ECJ2XB1E104K	
C3303	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3304	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3305	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3306	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3307	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3309	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3310	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3311	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3312	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3313	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3314	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3351	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3352	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3353	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3354	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3355	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3356	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3357	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3358	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3359	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3360	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3361	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3362	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3363	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3364	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3365	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3404	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3405	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3406	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	

Loc. No.	Part No	Description	Reference No.	Remarks
C3407	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3409	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3410	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3501	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3502	72000299	CAPACITOR, E 22UF, 25V	EEVHP1E220	
C3503	72000835	CAPACITOR, E 10UF, 25V	EEVHP1E100	
C3504	72000835	CAPACITOR, E 10UF, 25V	EEVHP1E100	
C3505	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3506	72000229	CAPACITOR, C 6.8UF, 6.3V	TCUY0J685MBM	
C3507	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3509	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3510	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3511	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3512	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3516	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3517	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3518	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3520	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3521	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3523	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3524	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3529	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3530	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3531	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3533	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3534	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3542	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3544	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3550	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C3551	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3561	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3562	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3591	72000913	CAPACITOR, C 1UF, 16V	TCUY1C105ZFN	
C3592	72000913	CAPACITOR, C 1UF, 16V	TCUY1C105ZFN	
C3593	72000226	CAPACITOR, C 0.1UF, Z, 25V	ECJ2VF1E104Z	
C3594	72000913	CAPACITOR, C 1UF, 16V	TCUY1C105ZFN	
C3595	72000913	CAPACITOR, C 1UF, 16V	TCUY1C105ZFN	
C3700	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3701	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3702	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	

Loc. No.	Part No	Description	Reference No.	Remarks
C3703	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3704	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3706	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3708	72000832	CAPACITOR, E 220UF, 4V	EEVHB0G221	
C3709	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3710	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3711	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3712	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3713	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3714	72000301	CAPACITOR, E 100UF, 6.3V	EEVHB0J101	
C3715	72000832	CAPACITOR, E 220UF, 4V	EEVHB0G221	
C3716	72000301	CAPACITOR, E 100UF, 6.3V	EEVHB0J101	
C3717	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3718	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3723	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3726	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3727	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3728	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3729	72000919	CAPACITOR, C 470PF, K, 50V	ECJ2XB1H471K	
C3801	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3802	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3803	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3804	72000808	CAPACITOR, C 47PF, J, 50V	ECJ1XC1H470J	
C3805	72000807	CAPACITOR, C 22PF, J, 50V	ECJ1XC1H220J	
C3806	72000809	CAPACITOR, C 68PF, J, 50V	ECJ1XC1H680J	
C3808	72000299	CAPACITOR, E 22UF, 25V	EEVHP1E220	
C3809	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3810	72000834	CAPACITOR, E 22UF 6.3V	EEVHB0J220	
C3812	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3815	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C3816	72000835	CAPACITOR, E 10UF, 25V	EEVHP1E100	
C3817	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3818	72000799	CAPACITOR, C 0.01UF, K, 50V	ECJ1VB1H103K	
C3819	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3820	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	
C3821	72000799	CAPACITOR, C 0.01UF, K, 50V	ECJ1VB1H103K	
C3823	72000301	CAPACITOR, E 100UF, 6.3V	EEVHB0J101	
C3824	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3825	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3826	72000803	CAPACITOR, C 0.1UF, Z, 16V	ECJ1VF1C104Z	

Loc. No.	Part No	Description	Reference No.	Remarks
C3828	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3829	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3830	72000806	CAPACITOR, C 18PF, J, 50V	ECJ1XC1H180J	
C3831	72000806	CAPACITOR, C 18PF, J, 50V	ECJ1XC1H180J	
C3832	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3833	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3834	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3835	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3836	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3837	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3838	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3840	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3841	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3842	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3843	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3844	72000833	CAPACITOR, E 1500UF, 6.3V	EEVHB0J152P	
C3845	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3846	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3848	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3849	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3850	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3852	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3853	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3854	72000802	CAPACITOR, C 0.8PF, J, 50V	ECJ1VC1H080C	
C3855	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3856	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3857	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3858	72000832	CAPACITOR, E 220UF, 4V	EEVHB0G221	
C3859	72000833	CAPACITOR, E 1500UF, 6.3V	EEVHB0J152P	
C3860	72000833	CAPACITOR, E 1500UF, 6.3V	EEVHB0J152P	
C3861	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3862	72000799	CAPACITOR, C 0.01UF, K, 50V	ECJ1VB1H103K	
C3863	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3864	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3865	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3866	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3867	72000804	CAPACITOR, C 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3868	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3869	72000227	CAPACITOR, C 33PF, J, 50V	ECJ1XC1H330J	
C3870	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3871	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3872	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3873	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3874	72000799	CAPACITOR, C 0.01UF, K, 50V	ECJ1VB1H103K	
C3875	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3876	72000798	CAPACITOR, C 1000PF, K, 50V	ECJ1VB1H102K	
C3877	72000778	CAPACITOR, C 0.1UF, K, 16V	ECJ1VB1C104K	
C3878	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3879	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3880	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3881	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3882	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3883	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3884	72000800	CAPACITOR, C 0.15UF, K, 50V	ECJ1VB1H153K	
C3885	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3886	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3887	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3888	72000805	CAPACITOR, C 100PF, J, 50V	ECJ1XC1H101J	
C3889	72000801	CAPACITOR, C 4700PF, K, 50V	ECJ1VB1H472K	
C3890	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C3891	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3892	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3893	72000300	CAPACITOR, C 3.3UF, 6.3V	TCUY0J335MBM	
C3894	72000832	CAPACITOR, E 220UF, 4V	EEVHB0G221	
C3896	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3897	72000809	CAPACITOR, C 68PF, J, 50V	ECJ1XC1H680J	
C3898	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C3899	72000227	CAPACITOR, C 33PF, J, 50V	ECJ1XC1H330J	
C401	72000230	CAPACITOR, C 2200PF,	ECKDNA222ME	
C402	72000230	CAPACITOR, C 2200PF,	ECKDNA222ME	
C404	72000230	CAPACITOR, C 2200PF,	ECKDNA222ME	
C405	72000271	CAPACITOR, P 1UF, J,630V	ECQE6105JF	
C406	72000794	CAPACITOR, E 100UF, 50V	ECA1HHG101	
C407	72000794	CAPACITOR, E 100UF, 50V	ECA1HHG101	
C408	72000254	CAPACITOR, P 2700PF, J, 50V	ECQB1H272JF	
C409	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C410	72000248	CAPACITOR, C 1000PF, K, 2KV	ECKD3D102KBP	
C411	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C412	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C413	72000817	CAPACITOR, C 100PF, K, 2KV	ECKD3D101KBP	

Loc. No.	Part No	Description	Reference No.	Remarks
C414	72000795	CAPACITOR, E 470UF, 50V	ECA1HHG471	
C415	72000236	CAPACITOR, E 330UF, 450V	EETHC2W331L	
C416	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C417	72000236	CAPACITOR, E 330UF, 450V	EETHC2W331L	
C418	72000271	CAPACITOR, P 1UF, J,630V	ECQE6105JF	
C419	72000235	CAPACITOR, C 1000PF, K, 1KV	ECKD3A102KBP	
C420	72000235	CAPACITOR, C 1000PF, K, 1KV	ECKD3A102KBP	
C421	72000235	CAPACITOR, C 1000PF, K, 1KV	ECKD3A102KBP	
C423	72000237	CAPACITOR, P 0.068UF, M,250V	ECQU2A683MN	
C424	72000238	CAPACITOR, E 470UF, 25V	EEUFC1E471	
C425	72000821	CAPACITOR, P 0.47UF, K,400V	ECQE4474JF	
C426	72000821	CAPACITOR, P 0.47UF, K,400V	ECQE4474JF	
C427	72000239	CAPACITOR, E 22UF, 450V	ECA2WHG220	
C428	72000240	CAPACITOR, C 3900PF, K, 2KV	ECKD3D392KBP	
C430	72000241	CAPACITOR, P 0.1UF, K, 1KV	ECQE10104KF	
C431	72000243	CAPACITOR, E 22UF, 50V	ECA1HHG220	
C432	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C433	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C434	72000816	CAPACITOR, C 820PF, K,500V	ECKD2H821KB7	
C435	72000820	CAPACITOR, P 1UF, K,400V	ECQE4105JF	
C436	72000820	CAPACITOR, P 1UF, K,400V	ECQE4105JF	
C437	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	
C438	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C439	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C441	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C442	72000248	CAPACITOR, C 1000PF, K, 2KV	ECKD3D102KBP	
C443	72000248	CAPACITOR, C 1000PF, K, 2KV	ECKD3D102KBP	
C445	72000235	CAPACITOR, C 1000PF, K, 1KV	ECKD3A102KBP	
C449	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C450	72000815	CAPACITOR, C 560PF, K,500V	ECKD2H561KB7	
C451	72000815	CAPACITOR, C 560PF, K,500V	ECKD2H561KB7	
C452	72000830	CAPACITOR, E 470UF, 16V	EEUFC1C471	
C453	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	
C454	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	
C455	72000911	CAPACITOR, E 1000UF, 25V	ECA1EHG102	
C456	72000261	CAPACITOR, C 1200PF, 500V	ECKDHT122KB	
C457	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	
C459	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	
C460	72000825	CAPACITOR, E 1000UF, 200V	EETHC2D102K	
C461	72000234	CAPACITOR, C 100PF, K, 1KV	ECKD3A101KBP	

Loc. No.	Part No	Description	Reference No.	Remarks
C463	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C464	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C465	72000793	CAPACITOR, E 4700UF, 25V	ECA1EHG472	
C466	72000825	CAPACITOR, E 1000UF, 200V	EETHC2D102K	
C467	72000283	CAPACITOR, E 1UF, 50V	ECA1HHG010	
C468	72000827	CAPACITOR, E 330UF, 160V	EEUEB2C331	
C471	72000256	CAPACITOR, E 2200UF, 25V	ECA1EHG222	
C472	72000256	CAPACITOR, E 2200UF, 25V	ECA1EHG222	
C473	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C474	72000257	CAPACITOR, C 0.01UF, Z,500V	ECKD2H103ZU	
C475	72000824	CAPACITOR, P 0.047UF, J,800V	ECWH8473JVB	
C477	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C478	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C479	72000829	CAPACITOR, E 2700UF, 16V	EEUFC1C272L	
C480	72000829	CAPACITOR, E 2700UF, 16V	EEUFC1C272L	
C481	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C484	72000826	CAPACITOR, E 47UF, 25V	EEUEB1E470	
C485	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C486	72000792	CAPACITOR, E 4700UF, 10V	ECA1AHG471	
C487	72000243	CAPACITOR, E 22UF, 50V	ECA1HHG220	
C488	72000192	CAPACITOR, E 47UF, 50V	ECA1HHG470	
C489	72000274	CAPACITOR, C 0.022UF, Z, 50V	ECKF1H223ZF	
C492	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C494	72000794	CAPACITOR, E 100UF, 50V	ECA1HHG101	
C496	72000263	CAPACITOR, E 6800UF, 10V	EEUFC1A682	
C497	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C498	72000796	CAPACITOR, E 470UF, 100V	ECA2AHG471	
C499	72000267	CAPACITOR, C 3300PF, K,500V	ECKDHT332KB	
C500	72000274	CAPACITOR, C 0.022UF, Z, 50V	ECKF1H223ZF	
C501	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C502	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C504	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C505	72000273	CAPACITOR, E 33UF, 50V	EEUFC1H330	
C509	72000261	CAPACITOR, C 1200PF, 500V	ECKDHT122KB	
C511	72000264	CAPACITOR, E 22UF, 200V	ECA2DHG220	
C512	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C600	72000280	CAPACITOR, E 10UF, 50V	ECA1HHG100	
C601	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C603	72000819	CAPACITOR, P 4700PF, J, 50V	ECQB1H472JF	
C604	72000292	CAPACITOR, E 100UF, 25V	ECA1EHG101	

Loc. No.	Part No	Description	Reference No.	Remarks
C605	72000811	CAPACITOR, C 330PF, J, 50V	ECJ2XC1H331J	
C606	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C607	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C609	72000231	CAPACITOR, P 0.047UF, J, 50V	ECQB1H473JF	
C610	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C612	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C613	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C614	72000268	CAPACITOR, C 470PF, K, 50V	ECKF1H471KB	
C615	72000268	CAPACITOR, C 470PF, K, 50V	ECKF1H471KB	
C616	72000292	CAPACITOR, E 100UF, 25V	ECA1EHG101	
C617	72000918	CAPACITOR, P 0.01UF, J,400V	ECQM4103JZ	
C618	72000280	CAPACITOR, E 10UF, 50V	ECA1HHG100	
C619	72000814	CAPACITOR, C 4700PF, K,500V	ECKD2H472KB2	
C620	72000814	CAPACITOR, C 4700PF, K,500V	ECKD2H472KB2	
C621	72000797	CAPACITOR, E 10UF, 25V	ECEA1EN100U	
C622	72000813	CAPACITOR, C 1000PF, M,	ECKCWS102MEB	
C650	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C651	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C652	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C653	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C654	72000282	CAPACITOR, C 100PF, K, 50V	ECKF1H101KB	
C655	72000243	CAPACITOR, E 22UF, 50V	ECA1HHG220	
C656	72000283	CAPACITOR, E 1UF, 50V	ECA1HHG010	
C657	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C658	72000818	CAPACITOR, P 1200PF, J, 50V	ECQB1H122JF	
C660	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C661	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C731	72000910	CAPACITOR, C 220PF, K, 50V	ECKF1H221KB	
C732	72000243	CAPACITOR, E 22UF, 50V	ECA1HHG220	
C733	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C734	72000909	CAPACITOR, E 220UF, 50V	EEUFC1H221	
C735	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C736	72000289	CAPACITOR, C 0.22UF, K, 16V	ECJ2VB1C224K	
C737	72000194	CAPACITOR, P 0.47UF, J, 50V	ECQV1H474JM	
C738	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C739	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C740	72000284	CAPACITOR, P 1000PF, J, 50V	ECQB1H102JF	
C741	72000243	CAPACITOR, E 22UF, 50V	ECA1HHG220	
C742	72000252	CAPACITOR, P 0.01UF, J, 50V	ECQB1H103JF	
C743	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	

Loc. No.	Part No	Description	Reference No.	Remarks
C744	72000244	CAPACITOR, P 0.1UF, J, 50V	ECQV1H104JM	
C750	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C751	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C752	72000915	CAPACITOR, E 470UF, 25V	ECA1EHG471	
C754	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C755	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C756	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C757	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C775	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C776	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C778	72000265	CAPACITOR, P 1UF, J, 50V	ECQV1H105JM	
C779	72000283	CAPACITOR, E 1UF, 50V	ECA1HHG010	
C780	72000283	CAPACITOR, E 1UF, 50V	ECA1HHG010	
C781	72000283	CAPACITOR, E 1UF, 50V	ECA1HHG010	
C782	72000292	CAPACITOR, E 100UF, 25V	ECA1EHG101	
C783	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C784	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C785	72000915	CAPACITOR, E 470UF, 25V	ECA1EHG471	
C786	72000906	CAPACITOR, C 0.01UF, Z, 50V	ECKF1H103ZF	
C787	72000245	CAPACITOR, E 47UF, 25V	ECA1EHG470	
C8001	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C8002	72000299	CAPACITOR, E 22UF, 25V	EEVHP1E220	
C8003	72000919	CAPACITOR, C 470PF, K, 50V	ECJ2XB1H471K	
C8004	72000201	CAPACITOR, C 2.2UF, 16V	TCUY1C225KBM	
C8005	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C8007	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C8008	72000190	CAPACITOR, C 10UF, M,6.3V	ECJ3XB0J106M	
C8009	72000217	CAPACITOR, C 4.7UF, 16V	TCUY1C475ZFM	
C8010	72000201	CAPACITOR, C 2.2UF, 16V	TCUY1C225KBM	
C8011	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C8012	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C8013	72000303	CAPACITOR, C 0.47UF, K, 16V	ECJ3VB1C474K	
C8014	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C8015	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C8016	72000191	CAPACITOR, C 0.01UF, Z, 50V	ECJ2VF1H103Z	
C8017	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C8018	72000220	CAPACITOR, C 1000PF, J, 50V	ECJ2XC1H102J	
C8019	72000225	CAPACITOR, C 1UF, Z, 16V	ECJ2VF1C105Z	
C8020	72000200	CAPACITOR, C 100PF, J, 50V	ECJ2XC1H101J	
C8021	72000306	CAPACITOR, C 1500PF, J, 50V	ECJ2XC1H152J	

Loc. No.	Part No	Description	Reference No.	Remarks
C8022	72000224	CAPACITOR, C 0.1UF, Z, 16V	ECJ2VF1C104Z	
C8023	72000907	CAPACITOR, E 47UF, 16V	EEVHB1C470	
C900	72000823	CAPACITOR, P 0.22UF, 250V	ECQU2A224BN9	
C901	72000823	CAPACITOR, P 0.22UF, 250V	ECQU2A224BN9	
C902	72000822	CAPACITOR, P 1UF, 250V	ECQU2A105BN9	
C903	72001061	CAPACITOR, C 220PF	ECKCNA221KBB	
C904	72001061	CAPACITOR, C 220PF	ECKCNA221KBB	
C905	72001061	CAPACITOR, C 220PF	ECKCNA221KBB	
C906	72001061	CAPACITOR, C 220PF	ECKCNA221KBB	
C951	72000831	CAPACITOR, E 330UF, 25V	EEUFC1E331	
C952	72000810	CAPACITOR, C 0.01UF, J, 50V	ECJ2XB1H103J	
C953	72000990	CAPACITOR, C 4.7UF, 25V	F1L1E4750004	
C954	72000220	CAPACITOR, C 1000PF, J, 50V	ECJ2XC1H102J	
C955	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C956	72000202	CAPACITOR, C 0.047UF, K, 50V	ECJ2XB1H473K	
C957	72000220	CAPACITOR, C 1000PF, J, 50V	ECJ2XC1H102J	
C958	72000205	CAPACITOR, C 0.01UF, K, 50V	ECJ2XB1H103K	
C959	72000810	CAPACITOR, C 0.01UF, J, 50V	ECJ2XB1H103J	
C960	72000828	CAPACITOR, E 330UF, 6.3V	EEUFC0J331	
C961	72000828	CAPACITOR, E 330UF, 6.3V	EEUFC0J331	
D081	72000323	LED, LNJ107W5PRW	LNJ107W5PRW	
D082	72000324	DIODE, ZENER, MA8056M	MA8056M	
D1001	72000615	DIODE, MA111	MA111	
D2301	72000325	DIODE, M1FS4	M1FS4	
D2302	72000325	DIODE, M1FS4	M1FS4	
D2303	72000325	DIODE, M1FS4	M1FS4	
D2304	72000325	DIODE, M1FS4	M1FS4	
D2305	72000326	DIODE, RU4AM	RU4AM	
D2306	72000326	DIODE, RU4AM	RU4AM	
D2307	72000615	DIODE, MA111	MA111	
D2308	72000923	DIODE, MA152WK	MA152WK	
D3001	72000615	DIODE, MA111	MA111	
D3002	72000325	DIODE, M1FS4	M1FS4	
D3351	72000616	DIODE, MA153A	MA153A	
D3352	72000616	DIODE, MA153A	MA153A	
D3501	72000330	DIODE, ZENER, MA3056M	MA3056M	
D3502	72000330	DIODE, ZENER, MA3057M	MA3056M	
D3503	72000330	DIODE, ZENER, MA3058M	MA3056M	
D3504	72000330	DIODE, ZENER, MA3059M	MA3056M	
D3505	72000616	DIODE, MA153A	MA153A	
D3506	72000616	DIODE, MA153A	MA153A	
D3507	72000615	DIODE, MA111	MA111	
D401	72000338	DIODE, MA165	MA165	
D402	72000338	DIODE, MA165	MA165	
D403	72000623	DIODE, RBV-1306H	RBV-1306H	
D404	72000335	DIODE, D1NL20UV70	D1NL20UV70	
D405	72001019	DIODE, TVSRG2	TVSRG2	
D406	72000334	DIODE, ZENER, MA4300H	MA4300H	
D407	72000338	DIODE, MA165	MA165	
D408	72000334	DIODE, ZENER, MA4300H	MA4300H	
D409	72000361	DIODE, TMPG10G3	TMPG10G3	
D412	72000791	DIODE, D5L60F4015	D5L60F4015	
D413	72000338	DIODE, MA165	MA165	
D414	72000339	DIODE, RK34	RK34	
D415	72000339	DIODE, RK34	RK34	
D416	72000342	DIODE, AK04	AK04	
D417	72000342	DIODE, AK04	AK04	
D418	72000338	DIODE, MA165	MA165	
D419	72000341	DIODE, S1WBA80	S1WBA80	
D421	72000361	DIODE, TMPG10G3	TMPG10G3	
D422	72000335	DIODE, D1NL20UV70	D1NL20UV70	
D425	72000359	DIODE, ZENER, MA4082L	MA4082L	
D426	72000343	DIODE, ERA22-10	ERA22-10	
D427	72001019	DIODE, TVSRG2	TVSRG2	
D428	72000338	DIODE, MA165	MA165	
D429	72000335	DIODE, D1NL20UV70	D1NL20UV70	
D430	72000344	DIODE, RC3B2LFU1	RC3B2LFU1	
D431	72000353	DIODE, D1NL40V70	D1NL40V70	
D432	72000345	DIODE, ZENER, MA2120A	MA2120A	
D433	72000788	DIODE, B0FAAR000003	B0FAAR000003	
D434	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D435	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D436	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D437	72000787	DIODE, B0BA02700021	B0BA02700021	
D439	72001018	DIODE, TVSEU2	TVSEU2	
D440	72001018	DIODE, TVSEU2	TVSEU2	
D441	72001001	DIODE, RL3Z	RL3Z	
D442	72001001	DIODE, RL3Z	RL3Z	
D443	72000351	DIODE, FML-G12S	FML-G12S	
D444	72000353	DIODE, D1NL40V70	D1NL40V70	
D445	72000351	DIODE, FML-G12S	FML-G12S	
D446	72000991	DIODE, FMGG2CS	FMGG2CS	
D447	72000336	DIODE, MA700A	MA700A	
D448	72000352	DIODE, ZENER, MA4051M	MA4051M	
D449	72000843	DIODE, ERA22-04	ERA22-04	
D450	72000338	DIODE, MA165	MA165	
D451	72000357	DIODE, ERA15-02	ERA15-02	
D452	72000620	DIODE, ZENER, MA4056-M	MA4056-M	
D453	72000338	DIODE, MA165	MA165	
D455	72000843	DIODE, ERA22-04	ERA22-04	
D456	72000843	DIODE, ERA22-04	ERA22-04	
D457	72000617	DIODE, ZENER, MA2330-A	MA2330-A	
D459	72000338	DIODE, MA165	MA165	
D460	72000358	DIODE, ZENER, MA4047H	MA4047H	
D461	72000339	DIODE, RK34	RK34	
D462	72000621	DIODE, ZENER, MA4150-M	MA4150-M	
D463	72000621	DIODE, ZENER, MA4151-M	MA4150-M	
D464	72000621	DIODE, ZENER, MA4152-M	MA4150-M	
D465	72000621	DIODE, ZENER, MA4153-M	MA4150-M	
D468	72000843	DIODE, ERA22-04	ERA22-04	
D469	72000362	DIODE, ZENER, MA4068H	MA4068H	
D470	72000843	DIODE, ERA22-04	ERA22-04	
D481	72000843	DIODE, ERA22-04	ERA22-04	
D604	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D606	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D607	72000367	DIODE, ZENER, MA3062M	MA3062M	
D608	72000327	DIODE, MA152K	MA152K	
D609	72000327	DIODE, MA152K	MA152K	
D615	72000327	DIODE, MA152K	MA152K	
D650	72000618	DIODE, ZENER, MA3110M	MA3110M	
D651	72000327	DIODE, MA152K	MA152K	
D654	72000325	DIODE, M1FS4	M1FS4	

Loc. No.	Part No	Description	Reference No.	Remarks
D655	72000619	DIODE, ZENER, MA3120M	MA3120M	
D656	72000327	DIODE, MA152K	MA152K	
D657	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D658	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D659	72000619	DIODE, ZENER, MA3120M	MA3120M	
D730	72000327	DIODE, MA152K	MA152K	
D731	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D732	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D733	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D734	72000327	DIODE, MA152K	MA152K	
D735	72000371	DIODE, ZENER, MA3300L	MA3300L	
D736	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D737	72000325	DIODE, M1FS4	M1FS4	
D738	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D739	72000371	DIODE, ZENER, MA3300L	MA3300L	
D740	72000370	DIODE, D1FL40F4063	D1FL40F4063	
D741	72000372	DIODE, ZENER, MA3039H	MA3039H	
D742	72000619	DIODE, ZENER, MA3120M	MA3120M	
D750	72000373	DIODE, ZENER, MA3047H	MA3047H	
D751	72000327	DIODE, MA152K	MA152K	
D752	72000327	DIODE, MA152K	MA152K	
D753	72000374	DIODE, ZENER, MA3033L	MA3033L	
D775	72000327	DIODE, MA152K	MA152K	
D776	72000327	DIODE, MA152K	MA152K	
D777	72000372	DIODE, ZENER, MA3039H	MA3039H	
D8001	72000615	DIODE, MA111	MA111	
D8002	72000615	DIODE, MA111	MA111	
D900	72000340	VARISTOR, ERZV10V621P2	ERZV10V621P2	
D951	72000615	DIODE, MA111	MA111	
D952	72000615	DIODE, MA111	MA111	
D953	72000789	DIODE, B0JCPD000010	B0JCPD000010	
F900-1	72000380	FUSE HOLDER, EYF-52BC	EYF-52BC	
F900-2	72000380	FUSE HOLDER, EYF-52BC	EYF-52BC	
F901-1	72000380	FUSE HOLDER, EYF-52BC	EYF-52BC	
F901-2	72000380	FUSE HOLDER, EYF-52BC	EYF-52BC	
IC1001	72000393	IC, TC7SH32F	TC7SH32F	
IC1002	72000943	IC, M38047M6-C02FP	C2BBFE000106	
IC1003	72000613	IC, LINEAR, M51957BFP	M51957BFP	
IC1004	72000942	IC, RS5C372A-E2	C1DB00000274	
IC2301	72000381	IC, LINEAR, TDA7480	TDA7480	
IC2302	72000381	IC, LINEAR, TDA7480	TDA7480	
IC2304	72000382	IC, PQ09SZ1T	PQ09SZ1T	
IC2401	72000939	IC, LINEAR, BH3865S	BH3865S	
IC3001	72000941	IC, MM1519XQ	C1AB00001139	
IC3002	72000387	IC, CMOS GATE ARRLY, MC14052BF	MC14052BF	
IC3003	72000387	IC, CMOS GATE ARRLY, MC14052BF	MC14052BF	
IC3004	72000389	IC, LINEAR, CXA1315M	CXA1315M	
IC3006	72000382	IC, PQ09SZ1T	PQ09SZ1T	
IC3007	72000924	IC, PQ12SZ1T	PQ12SZ1T	
IC3008	72000924	IC, PQ12SZ1T	PQ12SZ1T	

Loc. No.	Part No	Description	Reference No.	Remarks
IC3009	72000783	IC, SN74AHC2G66HDCTR	AHC2G66HDCTR	
IC3301	72000410	IC, CMOS S/LOGIC, TC4W53F	TC4W53F	
IC3302	72000409	IC, AD-8055ART-REEL7	AD8055ART	
IC3303	72000410	IC, CMOS S/LOGIC, TC4W53F	TC4W53F	
IC3501	72000420	IC, MICON LSI, JLC1562BF	JLC1562BF	
IC3502	72001015	IC, 24LC21T-I/SN	TVRJ661	
IC3515	72000394	IC, MAX202CSE-TG068	MAX202CSE	
IC3699	72001014	IC, EEPROM 16KBIT , 24LC16B-I/PA45	TVRJ593	
IC3801	72000411	IC, MM1065ZMR	MM1065ZMR	
IC3802	72000415	IC, LOGIC, PST9128NR	PST9128NR	
IC3803	72001016	IC, MSM56V16169D-8TS-K	TVSA0367	
IC3805	72000411	IC , MM1065ZMR	MM1065ZMR	
IC3806	72000411	IC , MM1065ZMR	MM1065ZMR	
IC3809	72000417	IC, CMOS S/LOGIC, TC74LCX244F	TC74LCX244F	
IC401	72000396	IC, LINEAR, AN7715F	AN7715F	
IC402	72000785	IC, LINEAR, AN7718F	AN7718F	
IC403	72000395	IC, LOGIC, MIP0210SY1TV	MIP0210SY1TV	
IC406	72000398	IC, LINEAR, UPC1093J	UPC1093J	
IC407	72000786	IC, LINEAR, AN77L05	AN77L05	
IC409	72000400	IC, LINEAR, PQ30RV21A	PQ30RV21A	
IC410	72000622	IC, LINEAR, PQ05RF1B	PQ05RF1B	
IC411	72000399	IC, HYBRID, SI-8050S	SI-8050S	
IC412	72000398	IC, LINEAR, UPC1093J	UPC1093J	
IC464	72000398	IC, LINEAR, UPC1093J	UPC1093J	
IC600	72000999	IC, IR2117	IR2117	
IC601	72000614	IC, LINEAR, M51997P	M51997P	
IC602	72000402	IC, UC3715N	UC3715N	
IC603	72000398	IC, LINEAR, UPC1093J	UPC1093J	
IC650	72000404	IC, LINEAR, AN8026	AN8026	
IC735	72000405	IC, MC33262P	MC33262P	
IC736	72000784	IC, LINEAR, AN6913	AN6913	
IC737	72000407	IC, LINEAR, AN78L05	AN78L05	
IC750	72000406	IC, LINEAR, AN6912	AN6912	
IC775	72000406	IC, LINEAR, AN6912	AN6912	
IC8001	72000413	IC, LINEAR, M52036SP	M52036SP	
IC8002	72000414	IC, TC74HC14AF	TC74HC14AF	
IC8003	72000417	IC, CMOS S/LOGIC, TC74LCX244F	TC74LCX244F	
IC951	72000940	IC, MD1222N-4072	C0DBAZH00006	
JK3301	72000608	CONNECTOR, K1CB106B0027	K1CB106B0027	
JK3305	72000612	JACK, K2HA306B0049	K2HA306B0049	
JK3306	72000611	JACK, K2HA306B0048	K2HA306B0048	
JK3307	72000610	JACK, K2HA204B0097	K2HA204B0097	
JK3308	72000609	JACK, K2HA204B0096	K2HA204B0096	
JK3509	72001006	CONNECTOR, TJS4A8390	TJS4A8390	
JK3511	72000430	CONNECTOR, TJS8A9880	TJS8A9880	
JK3513	72000925	JACK, K2HC103B0105	K2HC103B0105	

Loc. No.	Part No	Description	Reference No.	Remarks
L1001	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L1002	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L2301	72000926	COIL, LC FILTER, ELC10E680	ELC10E680	
L2302	72000926	COIL, LC FILTER, ELC10E680	ELC10E680	
L2303	72000434	COIL, BEAD CHOKE, EXCELDR35C	EXCELDR35C	
L2304	72000434	COIL, BEAD CHOKE, EXCELDR35C	EXCELDR35C	
L2306	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L2401	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3001	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3002	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3003	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3004	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3005	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3006	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3007	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3301	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3302	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3303	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3304	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3305	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3306	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3307	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3351	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3352	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3353	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3354	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3355	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3356	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3357	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3358	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3359	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3501	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3507	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	

Loc. No.	Part No	Description	Reference No.	Remarks
L3508	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3509	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3510	72000437	COIL, EMI FILTER, TLK212T256AL	TLK212T256AL	
L3511	72000437	COIL, EMI FILTER, TLK212T256AL	TLK212T256AL	
L3512	72000437	COIL, EMI FILTER, TLK212T256AL	TLK212T256AL	
L3513	72000437	COIL, EMI FILTER, TLK212T256AL	TLK212T256AL	
L3525	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3526	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3530	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3555	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3801	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3802	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3803	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3807	72001002	COIL, CHIP INDUCTOR COIL, TALC168T2R2K	TALC168T2R2K	
L3808	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3809	72001004	COIL, CHIP INDUCTOR COIL, TALC325T4R7M	TALC325T4R7M	
L3810	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3811	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3813	72001003	COIL, CHIP INDUCTOR COIL, TALC168T4R7K	TALC168T4R7K	
L3814	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3815	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3816	72000995	COIL, INDUCTOR COIL, G1C100KA0008	G1C100KA0008	
L3817	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3818	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3819	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3820	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3821	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3822	72000837	COIL, NOISE FILTER, ELKE103FA	ELKE103FA	
L3823	72000837	COIL, NOISE FILTER, ELKE103FA	ELKE103FA	
L3824	72000837	COIL, NOISE FILTER, ELKE103FA	ELKE103FA	
L3825	72000837	COIL, NOISE FILTER, ELKE103FA	ELKE103FA	
L3826	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3827	72000436	COIL, EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3828	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3829	72001007	COIL, EMI FILTER, TLK20LFA223M	TLK20LFA223M	
L3830	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L401	72000438	COIL, CHOKE COIL, TLPF102	TLPF102	
L402	72000451	COIL, LINE FILTER, ELF11M010E	ELF11M010E	

Loc. No.	Part No	Description	Reference No.	Remarks
L403	72000439	COIL, PEAKING COIL, ELEXH100KA	ELEXH100KA	
L404	72000994	COIL, COIL, G0ZZ00001922	G0ZZ00001922	
L410	72000442	COIL, BEAD CHOKE, EXCELSA39	EXCELSA39	
L412	72000442	COIL, BEAD CHOKE, EXCELSA39	EXCELSA39	
L413	72000442	COIL, BEAD CHOKE, EXCELSA39	EXCELSA39	
L414	72000443	COIL, BEAD CHOKE, EXCELDR25C	EXCELDR25C	
L416	72000441	COIL, CHOKE COIL, TLPF075	TLPF075	
L8001	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L8002	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L8003	72000435	COIL, CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L8501	72000446	COIL, LINE FILTER, TLPD061	TLPD061	
L8502	72000446	COIL, LINE FILTER, TLPD061	TLPD061	
L901	72000992	COIL, LINE CHOKE COIL, G0A143K00001	G0A143K00001	
L902	72001008	COIL, LINE FILTER, TLPD048	TLPD048	
L903	72001008	COIL, LINE FILTER, TLPD048	TLPD048	
L951	72000993	COIL, LINE CHOKE COIL, G0A2R2J00002	G0A2R2J00002	
L952	72000996	COIL, INDUCTOR COIL, G1C100M00023	G1C100M00023	
L953	72001005	COIL, INDUCTION COIL, TALL08N1R0NA	TALL08N1R0NA	
LC3805	72000836	LC FILTER, ELB4B578	ELB4B578	
Q082	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q1001	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q1002	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q1003	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q1004	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q1005	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q2301	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2302	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2303	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2304	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2305	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2306	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2406	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2408	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2410	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3001	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3002	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3003	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3004	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3005	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3006	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3007	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3008	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3009	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3010	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3011	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3012	72000781	TRANSISTOR, 2SC2480	2SC2480	
Q3085	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3086	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3301	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3302	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3303	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3304	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3305	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3306	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3307	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3308	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3309	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3351	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3352	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3353	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3354	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3355	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3356	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3357	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3358	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3359	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3501	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3502	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3503	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3507	72000452	TRANSISTOR, 2SD601A	2SD601A	CIRCUIT BOARD HX
Q3507	72000453	TRANSISTOR, 2SB709A	2SB709A	CIRCUIT BOARD HZ
Q3508	72000452	TRANSISTOR, 2SD601A	2SD601A	CIRCUIT BOARD HX
Q3508	72000453	TRANSISTOR, 2SB709A	2SB709A	CIRCUIT BOARD HZ
Q3509	72000452	TRANSISTOR, 2SD601A	2SD601A	CIRCUIT BOARD HX
Q3509	72000453	TRANSISTOR, 2SB709A	2SB709A	CIRCUIT BOARD HZ
Q3513	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3514	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3515	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3516	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3531	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3532	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3801	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3802	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3803	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3804	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3805	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3806	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3807	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3808	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3809	72000782	TRANSISTOR, FET, 2SK198R	2SK198R	
Q3810	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3812	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3813	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3815	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3817	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q401	72000779	TRANSISTOR, 2SB1434R	2SB1434R	
Q402	72000456	TRANSISTOR, FET, 2SK3318000LB	2SK3318000LB	
Q404	72000456	TRANSISTOR, FET, 2SK3318000LB	2SK3318000LB	
Q405	72000461	TRANSISTOR, 2SD2177R	2SD2177R	
Q406	72000779	TRANSISTOR, 2SB1434R	2SB1434R	
Q407	72000456	TRANSISTOR, FET, 2SK3318000LB	2SK3318000LB	
Q408	72000790	TRANSISTOR, FET, B1DEGR000011	B1DEGR000011	
Q409	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q410	72000459	TRANSISTOR, FET, 2SK2847	2SK2847	
Q412	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q413	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q414	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q415	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q416	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q417	72000460	TRANSISTOR, 2SC3311A	2SC3311A	

Loc. No.	Part No	Description	Reference No.	Remarks
Q418	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q419	72000455	TRANSISTOR, FET, 2SK1917	2SK1917	
Q420	72000780	TRANSISTOR, 2SC1473AH	2SC1473AH	
Q421	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q422	72000461	TRANSISTOR, 2SD2177R	2SD2177R	
Q423	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q462	72000780	TRANSISTOR, 2SC1473AH	2SC1473AH	
Q464	72000780	TRANSISTOR, 2SC1473AH	2SC1473AH	
Q465	72000455	TRANSISTOR, FET, 2SK1917	2SK1917	
Q600	72000780	TRANSISTOR, 2SC1473AH	2SC1473AH	
Q601	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q602	72000461	TRANSISTOR, 2SD2177R	2SD2177R	
Q603	72000779	TRANSISTOR, 2SB1434R	2SB1434R	
Q604	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q650	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q651	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q730	72000466	TRANSISTOR, 2SB1030A	2SB1030A	
Q750	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q751	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q775	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q776	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q8021	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q8030	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q951	72000452	TRANSISTOR, 2SD601A	2SD601A	
R081	72000469	RESISTOR, M 47 OHM,J,1/10W	ERJ6GEYJ470	
R082	72000470	RESISTOR, M 220KOHM,J,1/10W	ERJ6GEYJ224	
R083	72000471	RESISTOR, M 470 OHM,J,1/10W	ERJ6GEYJ471	
R084	72000970	RESISTOR, M 270 OHM,J,1/10W	ERJ6GEYG271	
R087	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R088	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R1001	72000625	RESISTOR, RESISTOR ARRAY	EXB38V330J	
R1002	72000625	RESISTOR, RESISTOR ARRAY	EXB38V330J	
R1003	72000625	RESISTOR, RESISTOR ARRAY	EXB38V330J	
R1004	72000625	RESISTOR, RESISTOR ARRAY	EXB38V330J	
R1006	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1007	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1008	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1009	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1010	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1011	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1012	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1013	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1014	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1015	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1016	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1017	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1018	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1019	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1020	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1021	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1022	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1023	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1024	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1025	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1026	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1027	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1028	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1029	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1030	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1031	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1032	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1033	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1034	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1035	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1036	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1037	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1038	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1039	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1040	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1041	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1042	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1043	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1044	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1045	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1046	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1047	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1048	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1049	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1050	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1051	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1052	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	

Loc. No.	Part No	Description	Reference No.	Remarks
R1053	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1054	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1055	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1056	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1057	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R1058	72000505	RESISTOR, M 1MOHM,J,1/16W	ERJ3GEYJ105	
R1059	72000905	RESISTOR, M 24KOHM, 1/10W	ERJ6ENF2402	
R1060	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1061	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1062	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R1063	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1064	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R1065	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1066	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R1067	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1068	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R1069	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R1070	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R1071	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R1072	72000593	RESISTOR, M 10KOHM, 1/10W	ERJ6ENF1002	
R1554	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R1555	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R2301	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2304	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R2305	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R2306	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R2307	72000977	RESISTOR, M 68KOHM,J,1/10W	ERJ6GEYG683	
R2308	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R2309	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2310	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R2319	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R2320	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R2321	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2322	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R2323	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R2324	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R2325	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R2326	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2327	72000483	RESISTOR, M 7.5KOHM,J,1/10W	ERJ6GEYJ752	
R2328	72000977	RESISTOR, M 68KOHM,J,1/10W	ERJ6GEYG683	
R2329	72000973	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYG332	
R2330	72000973	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYG332	
R2331	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2332	72000967	RESISTOR, M 1.8KOHM,J,1/10W	ERJ6GEYG182	
R2333	72000471	RESISTOR, M 470 OHM,J,1/10W	ERJ6GEYJ471	
R2334	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2335	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2336	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2341	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2342	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2343	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2344	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2345	72000471	RESISTOR, M 470 OHM,J,1/10W	ERJ6GEYJ471	
R2346	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2347	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R2348	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2408	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2410	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2431	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2434	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2438	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R2439	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	
R2440	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2441	72000953	RESISTOR, M 12KOHM,J,1/10W	ERJ6GEYF123	
R2445	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R2448	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R2450	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	
R2452	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R2453	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2456	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R2457	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R2460	72000494	RESISTOR, M 18KOHM, 1/10W	ERJ6ENF1802	
R2461	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R2462	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R2463	72000496	RESISTOR, M 15KOHM, 1/10W	ERJ6ENF1502	
R2464	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R2466	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R2467	72000470	RESISTOR, M 220KOHM,J,1/10W	ERJ6GEYJ224	
R2468	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2469	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	

Loc. No.	Part No	Description	Reference No.	Remarks
R2470	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2471	72000967	RESISTOR, M 1.8KOHM,J,1/10W	ERJ6GEYG182	
R2472	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R2473	72000967	RESISTOR, M 1.8KOHM,J,1/10W	ERJ6GEYG182	
R2476	72000497	RESISTOR, M 22 OHM,J,1/10W	ERJ6GEYJ220	
R2477	72000497	RESISTOR, M 22 OHM,J,1/10W	ERJ6GEYJ220	
R2480	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R2481	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R2482	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R2483	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R2484	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3001	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3002	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3003	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3004	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3007	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3009	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3010	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3011	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3012	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3013	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3014	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3015	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3016	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3017	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3018	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3019	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3020	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3021	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3022	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R3023	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R3024	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3025	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3026	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3027	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3028	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3029	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3030	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R3031	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R3032	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	

Loc. No.	Part No	Description	Reference No.	Remarks
R3033	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R3034	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R3035	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R3042	72000869	RESISTOR, M 33 OHM, J, 3W	ERG3FJ330H	
R3043	72000869	RESISTOR, M 33 OHM, J, 3W	ERG3FJ330H	
R3045	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3046	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R3047	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R3048	72000983	RESISTOR, M 75 OHM, 1/8W	ERJ8ENF75R0	
R3049	72000983	RESISTOR, M 75 OHM, 1/8W	ERJ8ENF75R0	
R3050	72000983	RESISTOR, M 75 OHM, 1/8W	ERJ8ENF75R0	
R3051	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3052	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3053	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3054	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3055	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3056	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3057	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3058	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3059	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3060	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3061	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3062	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3063	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3064	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3065	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3066	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3067	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3068	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3069	72000963	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYG122	
R3070	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3071	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3075	72000962	RESISTOR, M 120 OHM,J,1/10W	ERJ6GEYG121	
R3076	72000962	RESISTOR, M 120 OHM,J,1/10W	ERJ6GEYG121	
R3077	72000962	RESISTOR, M 120 OHM,J,1/10W	ERJ6GEYG121	
R3087	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3088	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3101	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3102	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3103	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	

Loc. No.	Part No	Description	Reference No.	Remarks
R3104	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3105	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3106	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3107	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3108	72000982	RESISTOR, M 330KOHM,J,1/10W	ERJ6GEYJ334	
R3109	72000894	RESISTOR, M 47KOHM,J,1/16W	ERJ3GEYJ473	
R3301	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3303	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3304	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3305	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3306	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3307	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3308	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3309	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3310	72000880	RESISTOR, M 15KOHM,J,1/16W	ERJ3GEYJ153	
R3311	72000888	RESISTOR, M 33KOHM,J,1/16W	ERJ3GEYJ333	
R3312	72000877	RESISTOR, M 12KOHM,J,1/16W	ERJ3GEYJ123	
R3313	72000897	RESISTOR, M 6.8KOHM,J,1/16W	ERJ3GEYJ682	
R3314	72000877	RESISTOR, M 12KOHM,J,1/16W	ERJ3GEYJ123	
R3315	72000897	RESISTOR, M 6.8KOHM,J,1/16W	ERJ3GEYJ682	
R3316	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3317	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3318	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3319	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3320	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3321	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3322	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3323	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3324	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3325	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3326	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3327	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3328	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3329	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3330	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3331	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3332	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3333	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3334	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3335	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3336	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3337	72000750	RESISTOR, M 1KOHM, 1/10W	ERJ6ENF1001	
R3338	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3339	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3340	72000951	RESISTOR, M 931 OHM, 1/10W	ERJ6ENF9310	
R3341	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3342	72000880	RESISTOR, M 15KOHM,J,1/16W	ERJ3GEYJ153	
R3343	72000888	RESISTOR, M 33KOHM,J,1/16W	ERJ3GEYJ333	
R3344	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3345	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3346	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3347	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3348	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3349	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3350	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3351	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3352	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3353	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3354	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3355	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3356	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3357	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3358	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3359	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3360	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3361	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3362	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3363	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3364	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3365	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3366	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3367	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3368	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3369	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3370	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3371	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3372	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3373	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3374	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3375	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	

Loc. No.	Part No	Description	Reference No.	Remarks
R3376	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3377	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3378	72000891	RESISTOR, M 3.3 OHM,J,1/16W	ERJ3GEYJ3R3	
R3379	72000891	RESISTOR, M 3.3 OHM,J,1/16W	ERJ3GEYJ3R3	
R3380	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3381	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3382	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3383	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3384	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3385	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3386	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3387	72000876	RESISTOR, M 100KOHM,J,1/16W	ERJ3GEYJ104	
R3388	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3389	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3390	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3391	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3392	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3393	72000891	RESISTOR, M 3.3 OHM,J,1/16W	ERJ3GEYJ3R3	
R3394	72000891	RESISTOR, M 3.3 OHM,J,1/16W	ERJ3GEYJ3R3	
R3395	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3396	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3400	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R3501	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3502	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3503	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3504	72000890	RESISTOR, M 39KOHM,J,1/16W	ERJ3GEYJ393	
R3505	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3506	72000881	RESISTOR, M 18KOHM,J,1/16W	ERJ3GEYJ183	
R3507	72000887	RESISTOR, M 3.3KOHM,J,1/16W	ERJ3GEYJ332	
R3508	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3509	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3510	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3511	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	CIRCUIT BOARD HX
R3511	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	CIRCUIT BOARD HZ
R3513	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3514	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3516	72000882	RESISTOR, M 22 OHM,J,1/16W	ERJ3GEYJ220	
R3517	72000882	RESISTOR, M 22 OHM,J,1/16W	ERJ3GEYJ220	
R3518	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3519	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3520	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3521	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3522	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3526	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3527	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3528	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3529	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3530	72000498	RESISTOR, M 180KOHM,J,1/10W	ERJ6GEYJ184	
R3532	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3533	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3534	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3535	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R3536	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R3537	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	CIRCUIT BOARD HX
R3537	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	CIRCUIT BOARD HZ
R3538	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	CIRCUIT BOARD HX
R3538	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	CIRCUIT BOARD HZ
R3539	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	
R3540	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	CIRCUIT BOARD HX
R3540	72000499	RESISTOR, M 75 OHM, 1/10W	ERJ6ENF75R0	CIRCUIT BOARD HZ
R3541	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3547	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3548	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3549	72000750	RESISTOR, M 1KOHM, 1/10W	ERJ6ENF1001	
R3550	72000750	RESISTOR, M 1KOHM, 1/10W	ERJ6ENF1001	
R3577	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R3578	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3579	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R3580	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3581	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R3582	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3585	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3586	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3589	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R3590	72000500	RESISTOR, M 56 OHM,J,1/10W	ERJ6GEYJ560	
R3595	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3596	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3597	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3599	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3603	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	

Loc. No.	Part No	Description	Reference No.	Remarks
R3604	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3611	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3612	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3613	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3614	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R3626	72000929	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYJ3R3	
R3627	72000929	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYJ3R3	
R3628	72000929	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYJ3R3	
R3629	72000929	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYJ3R3	
R3653	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R3654	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3655	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R3656	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R3663	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3664	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3668	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3672	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3755	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3756	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3764	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3765	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3766	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3776	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3777	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3778	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R3801	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3802	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3803	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R3804	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R3805	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R3806	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3808	72000886	RESISTOR, M 330 OHM,J,1/16W	ERJ3GEYJ331	
R3809	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3810	72000750	RESISTOR, M 1KOHM, 1/10W	ERJ6ENF1001	
R3811	72000902	RESISTOR, M 220 OHM, 1/10W	ERJ6ENF2200	
R3812	72000607	RESISTOR, M 330 OHM, 1/10W	ERJ6ENF3300	
R3813	72000949	RESISTOR, M 6.8KOHM, 1/10W	ERJ6ENF6801	
R3814	72000593	RESISTOR, M 10KOHM, 1/10W	ERJ6ENF1002	
R3815	72000902	RESISTOR, M 220 OHM, 1/10W	ERJ6ENF2200	
R3816	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R3817	72000895	RESISTOR, M 560 OHM,J,1/16W	ERJ3GEYJ561	
R3818	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3819	72000897	RESISTOR, M 6.8KOHM,J,1/16W	ERJ3GEYJ682	
R3820	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R3821	72000884	RESISTOR, M 2.2KOHM,J,1/16W	ERJ3GEYJ222	
R3822	72000897	RESISTOR, M 6.8KOHM,J,1/16W	ERJ3GEYJ682	
R3823	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3824	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3825	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3826	72000900	RESISTOR, M 150 OHM, 1/10W	ERJ6ENF1500	
R3827	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3828	72000947	RESISTOR, M 47 OHM, 1/10W	ERJ6ENF47R0	
R3829	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3830	72000882	RESISTOR, M 22 OHM,J,1/16W	ERJ3GEYJ220	
R3831	72000882	RESISTOR, M 22 OHM,J,1/16W	ERJ3GEYJ220	
R3832	72000947	RESISTOR, M 47 OHM, 1/10W	ERJ6ENF47R0	
R3833	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3834	72000947	RESISTOR, M 47 OHM, 1/10W	ERJ6ENF47R0	
R3835	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3836	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3837	72000989	RESISTOR, RESISTOR ARRAY	EXB38V471J	
R3838	72000989	RESISTOR, RESISTOR ARRAY	EXB38V471J	
R3839	72000989	RESISTOR, RESISTOR ARRAY	EXB38V471J	
R3840	72000989	RESISTOR, RESISTOR ARRAY	EXB38V471J	
R3841	72000892	RESISTOR, M 470 OHM,J,1/16W	ERJ3GEYJ471	
R3842	72000887	RESISTOR, M 3.3KOHM,J,1/16W	ERJ3GEYJ332	
R3843	72000892	RESISTOR, M 470 OHM,J,1/16W	ERJ3GEYJ471	
R3845	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3846	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3848	72000893	RESISTOR, M 4.7KOHM,J,1/16W	ERJ3GEYJ472	
R3849	72000945	RESISTOR, M 300 OHM, 1/10W	ERJ6ENF3000	
R3850	72000900	RESISTOR, M 150 OHM, 1/10W	ERJ6ENF1500	
R3851	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3852	72000589	RESISTOR, M 4.7KOHM, 1/10W	ERJ6ENF4701	
R3853	72000895	RESISTOR, M 560 OHM,J,1/16W	ERJ3GEYJ561	
R3854	72000904	RESISTOR, M 240 OHM, 1/10W	ERJ6ENF2400	
R3855	72000944	RESISTOR, M 2.7KOHM, 1/10W	ERJ6ENF2701	
R3856	72000904	RESISTOR, M 240 OHM, 1/10W	ERJ6ENF2400	
R3857	72000944	RESISTOR, M 2.7KOHM, 1/10W	ERJ6ENF2701	
R3858	72000904	RESISTOR, M 240 OHM, 1/10W	ERJ6ENF2400	

Loc. No.	Part No	Description	Reference No.	Remarks
R3859	72000878	RESISTOR, M 150 OHM,J,1/16W	ERJ3GEYJ151	
R3860	72000889	RESISTOR, M 390 OHM,J,1/16W	ERJ3GEYJ391	
R3861	72000885	RESISTOR, M 2.7KOHM,J,1/16W	ERJ3GEYJ272	
R3862	72000886	RESISTOR, M 330 OHM,J,1/16W	ERJ3GEYJ331	
R3863	72000885	RESISTOR, M 2.7KOHM,J,1/16W	ERJ3GEYJ272	
R3864	72000885	RESISTOR, M 2.7KOHM,J,1/16W	ERJ3GEYJ272	
R3865	72000883	RESISTOR, M 220 OHM,J,1/16W	ERJ3GEYJ221	
R3866	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3867	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3868	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3869	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3870	72000899	RESISTOR, M 82KOHM,J,1/16W	ERJ3GEYJ823	
R3871	72000875	RESISTOR, M 10KOHM,J,1/16W	ERJ3GEYJ103	
R3872	72000896	RESISTOR, M 68 OHM,J,1/16W	ERJ3GEYJ680	
R3873	72000879	RESISTOR, M 1.5KOHM,J,1/16W	ERJ3GEYJ152	
R3874	72000892	RESISTOR, M 470 OHM,J,1/16W	ERJ3GEYJ471	
R3875	72000879	RESISTOR, M 1.5KOHM,J,1/16W	ERJ3GEYJ152	
R3876	72000879	RESISTOR, M 1.5KOHM,J,1/16W	ERJ3GEYJ152	
R3877	72000892	RESISTOR, M 470 OHM,J,1/16W	ERJ3GEYJ471	
R3879	72000879	RESISTOR, M 1.5KOHM,J,1/16W	ERJ3GEYJ152	
R3881	72000874	RESISTOR, M 1KOHM,J,1/16W	ERJ3GEYJ102	
R3884	72000898	RESISTOR, M 82 OHM,J,1/16W	ERJ3GEYJ820	
R3885	72000898	RESISTOR, M 82 OHM,J,1/16W	ERJ3GEYJ820	
R3886	72000898	RESISTOR, M 82 OHM,J,1/16W	ERJ3GEYJ820	
R3887	72000873	RESISTOR, M 100 OHM,J,1/16W	ERJ3GEYJ101	
R3888	72000872	RESISTOR, M 0 OHM, 1/16W	ERJ3GEY0R00	
R3890	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R3891	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R3892	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R3893	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R3894	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R3895	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R402	72000524	RESISTOR, C 2.2KOHM, J,1/2W	ERDS1FJ222	
R403	72000506	RESISTOR, F 6.8 OHM, J, 7W	TARAFR06R8JC	
R404	72000506	RESISTOR, F 6.8 OHM, J, 7W	TARAFR06R8JC	
R405	72000506	RESISTOR, F 6.8 OHM, J, 7W	TARAFR06R8JC	
R406	72000506	RESISTOR, F 6.8 OHM, J, 7W	TARAFR06R8JC	
R407	72000507	RESISTOR, C 820KOHM, J,1/2W	ERDS1FJ824	
R408	72000507	RESISTOR, C 820KOHM, J,1/2W	ERDS1FJ824	
R409	72000510	RESISTOR, M 33KOHM, J, 3W	ERG3FJS333D	

Loc. No.	Part No	Description	Reference No.	Remarks
R410	72000510	RESISTOR, M 33KOHM, J, 3W	ERG3FJS333D	
R411	72000515	RESISTOR, C 220 OHM, J,1/2W	ERDS1FJ221	
R412	72000866	RESISTOR, M 22 OHM, J, 2W	ERG2FJS220D	
R415	72000513	RESISTOR, C 10 OHM, J,1/2W	ERDS1FJ100	
R416	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R417	72000513	RESISTOR, C 10 OHM, J,1/2W	ERDS1FJ100	
R418	72000511	RESISTOR, C 10KOHM, J,1/2W	ERDS1FJ103	
R419	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R420	72000511	RESISTOR, C 10KOHM, J,1/2W	ERDS1FJ103	
R421	72000516	RESISTOR, W 0.1 OHM, 5W	ERF5EKR10	
R422	72000517	RESISTOR, W0.15 OHM, 5W	ERF5EKR15	
R423	72000521	RESISTOR, C 100 OHM, J,1/2W	ERDS1FJ101	
R424	72000868	RESISTOR, M 82KOHM, J, 3W	ERG2FJS823D	
R425	72000868	RESISTOR, M 82KOHM, J, 3W	ERG2FJS823D	
R426	72000563	RESISTOR, CONTROL 20KOHMB 0.3W	EVMEASA00B24	
R427	72000508	RESISTOR, M 182KOHM, F,1/4W	ER0S2CKF1823	
R428	72000509	RESISTOR, M 150KOHM, F,1/4W	ER0S2CKF1503	
R429	72000508	RESISTOR, M 182KOHM, F,1/4W	ER0S2CKF1823	
R430	72000522	RESISTOR, C 22 OHM, J,1/2W	ERDS1FJ220	
R431	72000519	RESISTOR, M 162KOHM, F,1/4W	ER0S2CKF1623	
R432	72000522	RESISTOR, C 22 OHM, J,1/2W	ERDS1FJ220	
R433	72000508	RESISTOR, M 182KOHM, F,1/4W	ER0S2CKF1823	
R434	72000519	RESISTOR, M 162KOHM, F,1/4W	ER0S2CKF1623	
R435	72000511	RESISTOR, C 10KOHM, J,1/2W	ERDS1FJ103	
R436	72000511	RESISTOR, C 10KOHM, J,1/2W	ERDS1FJ103	
R437	72000844	RESISTOR, C 330 OHM, J,1/2W	ERDS1FJ331	
R438	72000514	RESISTOR, M 82 OHM, J, 2W	ERG2FJS820D	
R439	72000985	RESISTOR, M 2.7 OHM, J, 2W	ERX2FJS2R7D	
R440	72000530	RESISTOR, M0.22 OHM, J, 2W	ERX2FJSR22D	
R441	72000526	RESISTOR, M 47KOHM, J, 5W	ERG5FJ473H	
R442	72000526	RESISTOR, M 47KOHM, J, 5W	ERG5FJ473H	
R443	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R444	72000530	RESISTOR, M0.22 OHM, J, 2W	ERX2FJSR22D	
R445	72000527	RESISTOR, M 82KOHM, J, 3W	ERG3FJS823D	
R446	72000528	RESISTOR, M 100KOHM, J, 1W	ERG1FJS104D	
R447	72000527	RESISTOR, M 82KOHM, J, 3W	ERG3FJS823D	
R449	72000845	RESISTOR, C 100 OHM, J,1/4W	ERDS2FJ101	
R450	72000986	RESISTOR, M0.33 OHM, J, 2W	ERX2FJSR33D	
R451	72000859	RESISTOR, C 6.8 OHM, J,1/4W	ERDS2FJ6R8	
R452	72000986	RESISTOR, M0.33 OHM, J, 2W	ERX2FJSR33D	

Loc. No.	Part No	Description	Reference No.	Remarks
R453	72000857	RESISTOR, C 560 OHM, J,1/4W	ERDS2FJ561	
R454	72000859	RESISTOR, C 6.8 OHM, J,1/4W	ERDS2FJ6R8	
R455	72000846	RESISTOR, C 1KOHM, J,1/4W	ERDS2FJ102	
R458	72000569	RESISTOR, F 220 OHM, J,1/4W	ERQ14AJ221P	
R460	72000868	RESISTOR, M 82KOHM, J, 3W	ERG2FJS823D	
R461	72000537	RESISTOR, M 18KOHM, J, 2W	ERG2FJS183D	
R462	72000515	RESISTOR, C 220 OHM, J,1/2W	ERDS1FJ221	
R463	72000537	RESISTOR, M 18KOHM, J, 2W	ERG2FJS183D	
R465	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R466	72000852	RESISTOR, C 3.3KOHM, J,1/4W	ERDS2FJ332	
R467	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R468	72000533	RESISTOR, C 390 OHM, J,1/2W	ERDS1FJ391	
R469	72000527	RESISTOR, M 82KOHM, J, 3W	ERG3FJS823D	
R470	72000845	RESISTOR, C 100 OHM, J,1/4W	ERDS2FJ101	
R471	72000846	RESISTOR, C 1KOHM, J,1/4W	ERDS2FJ102	
R472	72000848	RESISTOR, C 100KOHM, J,1/4W	ERDS2FJ104	
R473	72000848	RESISTOR, C 100KOHM, J,1/4W	ERDS2FJ104	
R474	72000566	RESISTOR, M 470 OHM, J, 2W	ERG2FJS471D	
R475	72000566	RESISTOR, M 470 OHM, J, 2W	ERG2FJS471D	
R476	72000838	RESISTOR, M 11KOHM, F,1/4W	ER0S2CKF1102	
R477	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R478	72000545	RESISTOR, M2.55KOHM, F,1/4W	ER0S2CKF2551	
R479	72000846	RESISTOR, C 1KOHM, J,1/4W	ERDS2FJ102	
R480	72000867	RESISTOR, M 82KOHM, J, 3W	ERG2FJS472D	
R482	72000855	RESISTOR, C 4.7KOHM, J,1/4W	ERDS2FJ472	
R483	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R484	72000856	RESISTOR, C 47KOHM, J,1/4W	ERDS2FJ473	
R485	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R486	72000856	RESISTOR, C 47KOHM, J,1/4W	ERDS2FJ473	
R487	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R492	72000848	RESISTOR, C 100KOHM, J,1/4W	ERDS2FJ104	
R493	72000871	RESISTOR, M 10KOHM, J, 3W	ERG3FJS103D	
R494	72000840	RESISTOR, M4.22KOHM, F,1/4W	ER0S2CKF4221	
R495	72000562	RESISTOR, M 383 OHM, F,1/4W	ER0S2CKF3830	
R496	72000841	RESISTOR, M 56KOHM, F,1/4W	ER0S2CKF5602	
R497	72000842	RESISTOR, M64.9KOHM, F,1/4W	ER0S2CKF6492	
R498	72000548	RESISTOR, CONTROL 50KOHMB 0.3W	EVMEASA00B54	
R499	72000861	RESISTOR, C 2.7KOHM, J,1/4W	ERDS2TJ272	
R500	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R501	72000545	RESISTOR, M2.55KOHM, F,1/4W	ER0S2CKF2551	

Loc. No.	Part No	Description	Reference No.	Remarks
R502	72000855	RESISTOR, C 4.7KOHM, J,1/4W	ERDS2FJ472	
R503	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R504	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R505	72000865	RESISTOR, M 68KOHM, J, 1W	ERG1FJS683D	
R506	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R508	72000853	RESISTOR, C 47 OHM, J,1/4W	ERDS2FJ470	
R511	72000848	RESISTOR, C 100KOHM, J,1/4W	ERDS2FJ104	
R512	72000855	RESISTOR, C 4.7KOHM, J,1/4W	ERDS2FJ472	
R513	72000862	RESISTOR, C 510 OHM, J,1/4W	ERDS2TJ511	
R514	72000541	RESISTOR, C 22 OHM, J,1/4W	ERDS2TJ220	
R516	72000852	RESISTOR, C 3.3KOHM, J,1/4W	ERDS2FJ332	
R518	72000841	RESISTOR, M 56KOHM, F,1/4W	ER0S2CKF5602	
R519	72000552	RESISTOR, CONTROL 10KOHMB 0.3W	EVMEASA00B14	
R520	72000839	RESISTOR, M2.49KOHM, F,1/4W	ER0S2CKF2491	
R524	72000568	RESISTOR, F 10 OHM, J,1/4W	ERQ14AJ100P	
R530	72000568	RESISTOR, F 10 OHM, J,1/4W	ERQ14AJ100P	
R531	72000846	RESISTOR, C 1KOHM, J,1/4W	ERDS2FJ102	
R532	72000870	RESISTOR, M 100 OHM, J, 3W	ERG3FJS101D	
R533	72000863	RESISTOR, C 56 OHM, J,1/4W	ERDS2TJ560	
R534	72000858	RESISTOR, C 5.6KOHM, J,1/4W	ERDS2FJ562	
R535	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R536	72000856	RESISTOR, C 47KOHM, J,1/4W	ERDS2FJ473	
R537	72000847	RESISTOR, C 10KOHM, J,1/4W	ERDS2FJ103	
R538	72000856	RESISTOR, C 47KOHM, J,1/4W	ERDS2FJ473	
R600	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R601	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R602	72000973	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYG332	
R603	72000646	RESISTOR, M 180 OHM, 1/10W	ERJ6ENF1800	
R604	72000946	RESISTOR, M 39KOHM, 1/10W	ERJ6ENF3902	
R605	72000496	RESISTOR, M 15KOHM, 1/10W	ERJ6ENF1502	
R606	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R607	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R608	72000977	RESISTOR, M 68KOHM,J,1/10W	ERJ6GEYG683	
R609	72000966	RESISTOR, M 150KOHM,J,1/10W	ERJ6GEYG154	
R610	72000598	RESISTOR, M 27KOHM,J,1/10W	ERJ6GEYJ273	
R611	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R613	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R614	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R615	72000975	RESISTOR, M 5.6KOHM,J,1/10W	ERJ6GEYG562	
R616	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	

Loc. No.	Part No	Description	Reference No.	Remarks
R617	72000846	RESISTOR, C 1KOHM, J,1/4W	ERDS2FJ102	
R619	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R621	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R622	72000950	RESISTOR, M6.81KOHM, 1/10W	ERJ6ENF6811	
R624	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R625	72000936	RESISTOR, CONTROL 50KOHMB	EVMEGSA00B54	
R626	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R627	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R628	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R629	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	
R631	72000577	RESISTOR, M2.49KOHM, 1/10W	ERJ6ENF2491	
R632	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R633	72000978	RESISTOR, M 82KOHM,J,1/10W	ERJ6GEYG823	
R634	72000978	RESISTOR, M 82KOHM,J,1/10W	ERJ6GEYG823	
R635	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	
R636	72000849	RESISTOR, C 220 OHM, J,1/4W	ERDS2FJ221	
R637	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R638	72000849	RESISTOR, C 220 OHM, J,1/4W	ERDS2FJ221	
R640	72000901	RESISTOR, M 200 OHM, 1/10W	ERJ6ENF2000	
R650	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R651	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	
R652	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R653	72000954	RESISTOR, M 33KOHM,J,1/10W	ERJ6GEYF333	
R654	72000556	RESISTOR, M 560 OHM, J, 1W	ERG1FJS561D	
R655	72000854	RESISTOR, C 470 OHM, J,1/4W	ERDS2FJ471	
R656	72000981	RESISTOR, M 30KOHM,J,1/10W	ERJ6GEYJ303	
R657	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R658	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R659	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R661	72000860	RESISTOR, C 8.2KOHM, J,1/4W	ERDS2FJ822	
R662	72000964	RESISTOR, M 1.5KOHM,J,1/10W	ERJ6GEYG152	
R663	72000582	RESISTOR, M 4.7 OHM, J,1/2W	ERX12SJ4R7	
R664	72000583	RESISTOR, M 8.2 OHM, J, 1W	ERX1FJS8R2D	
R665	72000864	RESISTOR, M 10 OHM, J, 1W	ERG1FJS100D	
R666	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R667	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R668	72000981	RESISTOR, M 30KOHM,J,1/10W	ERJ6GEYJ303	
R669	72000981	RESISTOR, M 30KOHM,J,1/10W	ERJ6GEYJ303	
R700	72000974	RESISTOR, M 390 OHM,J,1/10W	ERJ6GEYG391	
R701	72000851	RESISTOR, C 33 OHM, J,1/4W	ERDS2FJ330	
R703	72000970	RESISTOR, M 270 OHM,J,1/10W	ERJ6GEYG271	
R704	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R705	72000949	RESISTOR, M 6.8KOHM, 1/10W	ERJ6ENF6801	
R706	72000589	RESISTOR, M 4.7KOHM, 1/10W	ERJ6ENF4701	
R707	72000980	RESISTOR, M 1.2KOHM,J,1/10W	ERJ6GEYJ125	
R708	72000587	RESISTOR, M 240 OHM,J,1/10W	ERJ6GEYJ241	
R709	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R710	72000957	RESISTOR, M 560 OHM,J,1/10W	ERJ6GEYF561	
R711	72000967	RESISTOR, M 1.8KOHM,J,1/10W	ERJ6GEYG182	
R712	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R713	72000588	RESISTOR, M 1.5KOHM, 1/10W	ERJ6ENF1501	
R714	72000588	RESISTOR, M 1.5KOHM, 1/10W	ERJ6ENF1501	
R715	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R716	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R717	72000948	RESISTOR, M 6.2KOHM, 1/10W	ERJ6ENF6201	
R718	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R719	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R720	72000855	RESISTOR, C 4.7KOHM, J,1/4W	ERDS2FJ472	
R721	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R722	72000473	RESISTOR, M 0 OHM,J,1/10W	ERJ6GEY0R00	
R750	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R751	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R752	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R753	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R754	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R755	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R756	72000592	RESISTOR, M19.1KOHM, 1/10W	ERJ6ENF1913	
R758	72000966	RESISTOR, M 150KOHM,J,1/10W	ERJ6GEYG154	
R759	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R760	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R761	72000593	RESISTOR, M 10KOHM, 1/10W	ERJ6ENF1002	
R762	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R763	72000593	RESISTOR, M 10KOHM, 1/10W	ERJ6ENF1002	
R764	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R765	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R766	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R767	72000594	RESISTOR, M 200KOHM, 1/10W	ERJ6ENF2003	
R768	72000595	RESISTOR, M61.9KOHM, 1/10W	ERJ6ENF6192	
R769	72000596	RESISTOR, M 100KOHM, 1/10W	ERJ6ENF1003	
R770	72000596	RESISTOR, M 100KOHM, 1/10W	ERJ6ENF1003	

Loc. No.	Part No	Description	Reference No.	Remarks
R775	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R776	72000850	RESISTOR, C 22KOHM, J,1/4W	ERDS2FJ223	
R777	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R778	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R779	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R780	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R781	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R782	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R783	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R784	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R785	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R786	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R787	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R788	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R789	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R8002	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R8003	72000965	RESISTOR, M 15KOHM,J,1/10W	ERJ6GEYG153	
R8004	72000970	RESISTOR, M 270 OHM,J,1/10W	ERJ6GEYG271	
R8006	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R8007	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R8008	72000976	RESISTOR, M 680 OHM,J,1/10W	ERJ6GEYG681	
R8009	72000973	RESISTOR, M 3.3KOHM,J,1/10W	ERJ6GEYG332	
R8010	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R8012	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8013	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R8015	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8017	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8018	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8019	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8021	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R8022	72000972	RESISTOR, M 330 OHM,J,1/10W	ERJ6GEYG331	
R8023	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R8024	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R8025	72000968	RESISTOR, M 18KOHM,J,1/10W	ERJ6GEYG183	
R8026	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8027	72000958	RESISTOR, M 1KOHM,J,1/10W	ERJ6GEYG102	
R8028	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R8029	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R8030	72000969	RESISTOR, M 2.2KOHM,J,1/10W	ERJ6GEYG222	
R8031	72000492	RESISTOR, M 56KOHM,J,1/10W	ERJ6GEYJ563	

Loc. No.	Part No	Description	Reference No.	Remarks
R8032	72000478	RESISTOR, M 22KOHM,J,1/10W	ERJ6GEYJ223	
R8033	72000971	RESISTOR, M 33 OHM,J,1/10W	ERJ6GEYG330	
R8035	72000495	RESISTOR, M 100 OHM,J,1/10W	ERJ6GEYJ101	
R8036	72000625	RESISTOR, RESISTOR ARRAY	EXB38V330J	
R900	72000631	RESISTOR, S 1MOHM, K,1/2W	ERC12ZGK105	
R901	72000631	RESISTOR, S 1MOHM, K,1/2W	ERC12ZGK105	
R951	72000960	RESISTOR, M 100KOHM,J,1/10W	ERJ6GEYG104	
R952	72000961	RESISTOR, M 1MOHM,J,1/10W	ERJ6GEYG105	
R953	72000959	RESISTOR, M 10KOHM,J,1/10W	ERJ6GEYG103	
R954	72000955	RESISTOR, M 4.7KOHM,J,1/10W	ERJ6GEYF472	
R955	72000956	RESISTOR, M 47KOHM,J,1/10W	ERJ6GEYF473	
R956	72000497	RESISTOR, M 22 OHM,J,1/10W	ERJ6GEYJ220	
R957	72000984	RESISTOR, M0.15 OHM, J,1/2W	ERX12ZJR15	
R958	72000984	RESISTOR, M0.15 OHM, J,1/2W	ERX12ZJR15	
R959	72000984	RESISTOR, M0.15 OHM, J,1/2W	ERX12ZJR15	
R960	72000951	RESISTOR, M 931 OHM, 1/10W	ERJ6ENF9310	
R961	72000903	RESISTOR, M 2.2KOHM, 1/10W	ERJ6ENF2201	
RL401	72001010	RELAY	TSEH0013	
RL402	72001009	RELAY	TSE10801	
RM001	72000649	REMOCO RECEIVER	PNA4601M05TV	
S061	72000650	POWER SWITCH	TSE4GD0001	
S1554	72000651	SWITCH	EVQPBD05R	
S1555	72000651	SWITCH	EVQPBD05R	
S1556	72000651	SWITCH	EVQPBD05R	
S701	72000988	SWITCH	EVQRDSL12	
T400	72000997	TRANSFORMER, SWITCHING TRANS	G4D4A0000012	
T401	72000987	TRANSFORMER, SWITCHING TRANS	ETS42BN163AD	
T402	72000655	TRANSFORMER, SWITCHING TRANS	ETS25AD186AG	
UC1	72701228	PC BOARD ASSY, C1, TNPA2253AB	TNPA2253AB	
UC2	72701229	PC BOARD ASSY, C2, TNPA2254AB	TNPA2254AB	
UC3	72701230	PC BOARD ASSY, C3, TNPA2255AB	TNPA2255AB	
UC4	72701231	PC BOARD ASSY, C4, TNPA2256AB	TNPA2256AB	
UD	72701240	PC BOARD ASSY, D, TZTNP02KNSR	TZTNP02KNSR	42WP16A,B,E,H,R
UD	72701241	PC BOARD ASSY, D, TZTNP01KNSC	TZTNP01KNSC	42WP16C
UF	72701242	PC BOARD ASSY, F, TXN/F1JASE	TXN/F1JASE	
UH3	72701227	PC BOARD ASSY, H3, TNPA2249	TNPA2249	
UHX	72701244	PC BOARD ASSY, HX, TZTNP01KNSR	TZTNP01KNSR	
UHZ	72701226	PC BOARD ASSY, HZ, TXNHZ10JJS	TXNHZ10JJS	
UJ	72701225	PC BOARD ASSY, J, TXN/J10JAS	TXN/J10JAS	
UP1	72701243	PC BOARD ASSY, P1, TXNP11JASE-N	TXNP11JASE-N	
UP3	72701220	PC BOARD ASSY, P3, TNPA1777	TNPA1777	
UP5	72701221	PC BOARD ASSY, P5, TNPA1778	TNPA1778	
UP6	72701222	PC BOARD ASSY, P6, TNPA1779	TNPA1779	
UP7	72701223	PC BOARD ASSY, P7, TNPA1780	TNPA1780	

Loc. No.	Part No	Description	Reference No.	Remarks
UP8	72701224	PC BOARD ASSY, P8, TNPA1781	TNPA1781	
US1	72701239	PC BOARD ASSY, S1, TNPA2283	TNPA2283	
USC	72701234	PC BOARD ASSY, SC, TNPA2261	TNPA2261	
USD	72701233	PC BOARD ASSY, SD, TNPA2260	TNPA2260	
USS	72701235	PC BOARD ASSY, SS, TNPA2262	TNPA2262	
USS2	72701236	PC BOARD ASSY, SS2, TNPA2263	TNPA2263	
USS3	72701237	PC BOARD ASSY, SS3, TNPA2264	TNPA2264	
USU	72701232	PC BOARD ASSY, SU, TNPA2259	TNPA2259	
UV1	72701238	PC BOARD ASSY, V1, TNPA2282	TNPA2282	
X1001	72001011	CRYSTAL	TSSA120	
X1002	72000998	CRYSTAL	H0J921400003	
X3801	72001013	CRYSTAL	TSSA148	

16 Specifications

Power Source:	AC220-240V 50/60Hz
Power Consumption:	295W
	1.8W (stand-by condition)
	1.6W (Power off condition)
Plasma Display panel:	Drive method AC type
	42-inch, 16:9 aspect ratio
Contrast Ratio	3000:1
Brightness Capability	(Panel only) 780 cd / m^2
	(As a set) 400 cd / m^2
Screen size:	920 mm (W)×518 mm (H)×1056 mm (diagonal)
	No. of pixels
	408,960 (852 (W)×480 (H)) [2,556×480 dots]
Operating condition:	
Temperature	34 °F - 104 °F (0 °C - 40 °C)
Humidity	20 % - 80 %
Applicable signals:	
Color System	NTSC, PAL, PAL60, SECAM, Modified NTSC
Scanning format	525i (480i), 625i (575i), 525p (480p), 625 (575p), 750p (720p), 1125/60i, 50i, 24p, 24SF (1080/60i, 50i, 24p, 24SF) ....SMPTE 274M
PC signals	VGA display
	VGA
	SVGA, SXGA, UXGA ...... (compressed)
	Horizontal scanning frequency 15.5 - 110kHz
	Vertical scanning frequency 48 - 120Hz
Connection terminals:	
AV	
Video in	1.0 Vp-p (75-ohm)
S-VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
AUDIO IN (RCA PIN JACK × 2)	0.5 Vrms (high impedance)
COMPONENT/RGB	
Y/G	1.0 Vp-p/composite (75-ohm)
	0.7 Vp-p/non-composite (75-ohm)
P_B/B	0.7 Vp-p (75-ohm)
P_R/R	0.7 Vp-p (75-ohm)
HD	1.0 - 5.0 Vp-p (high impedance)
VD	1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (RCA PIN JACK×2)	0.5 Vrms (high impedance)
PC	
(HIGH-DENSITY D-SUB15PIN)	R,G,B/0.7 Vp-p (75-ohm)
	HD, VD/1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (M3.5 JACK)	0.5Vrms (high impedance)
SERIAL	
EXTERNAL CONTROL TERMINAL (D-SUB9PIN)	RS-232C COMPATIBLE
SPEAKERS (External speakers)	6Ω 8W×2 (10% THD)
Dimensions (W×H×D):	40.2” (1020 mm)24” (610mm) 3.5” (89 mm)
Weight (Mass)	approx. 65.0 lbs (29.0 kg) (main unit only)
	approx. 74.3 lbs (33.2kg) (with speakers)

TOSHIBA CORPORATION
1–1, SHIBAURA 1– CHOME, MINATO – KU, TOKYO 105 – 8001, JAPAN

TOSHIBA

FILE NO. 050-200121

SERVICE MANUAL

PLASMA DISPLAY MONITOR

42WP16A, 42WP16H
42WP16C, 42WP16E
42WP16R, 42WP16B

PRINTED IN JAPAN Dec.,2001 Ⓟ

12 Block and Schematic Diagrams

12.1. Schematic Diagram Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

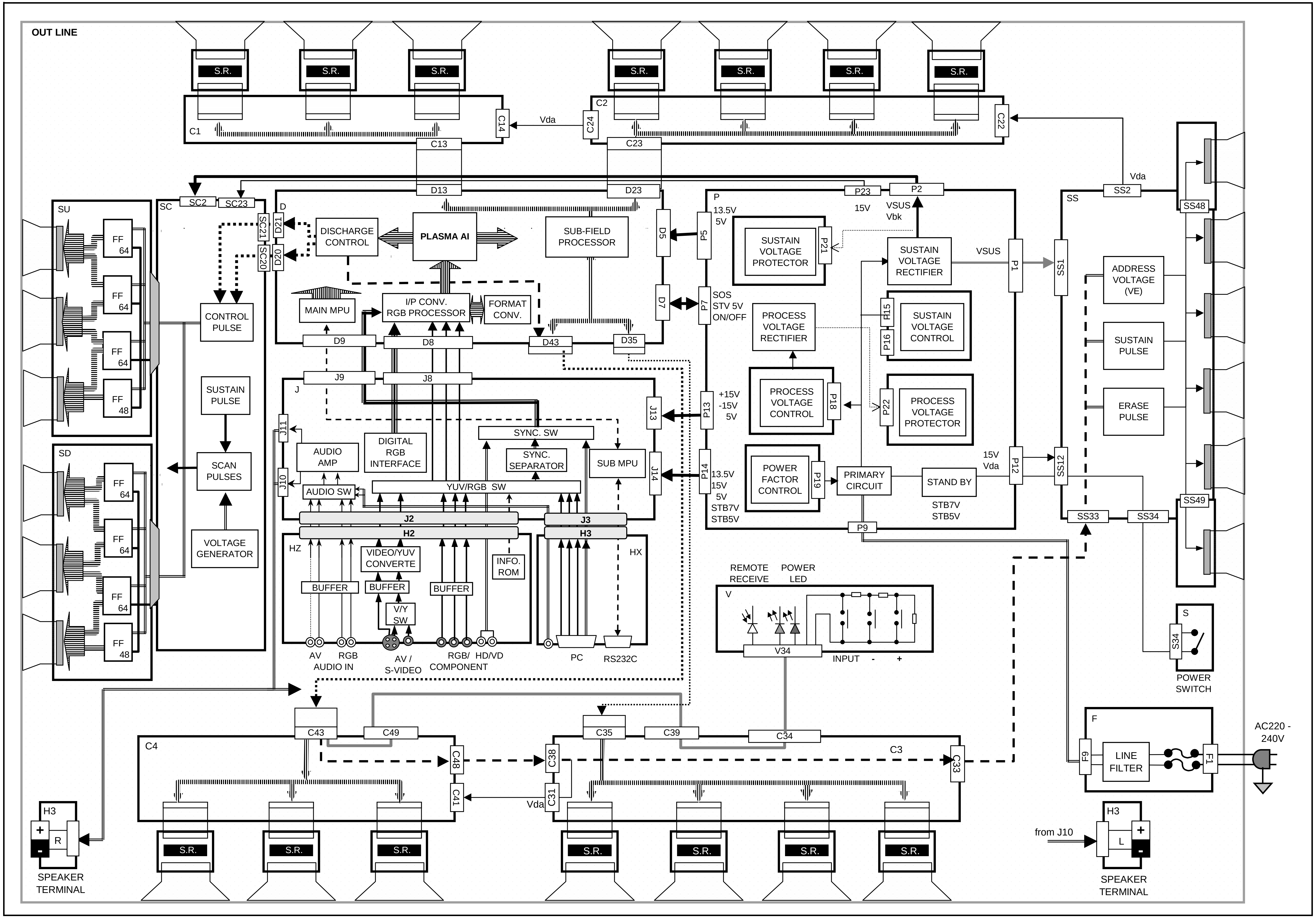
1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [W] (K=1,000, M=1,000,000).
   ○ : Nonflammable
   △ : Solid
   ⧄ : Wire Wound
   ⊠ : Metal Oxide
   ◎ : Metal Film
   ⊗ : Fuse:
2. **Capacitor**
   All capacitors are ceramic 50V capacitor, unless marked as follows:
   Unit of capacitance is mF, unless otherwise noted.
   ⊗ : Temperature Compensation
   Ⓜ : Polyester
   ⓜ : Metalized Polyester
   ⊠ : Polypropylene
   +⊣⊢ : Electrolytic
   NP⊣⊢ : Bipolar
   Ⓣ : Dipped Tantalum
   ⓩ : Z-Type
3. Coil
   Unit of inductance is mF, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol
   ⏚ : Chassis Earth (Cold)
   ▽ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source 50/60Hz
   Receiving Signal .... Colour Bar signal (RF)
   All customer's controls .... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow

9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

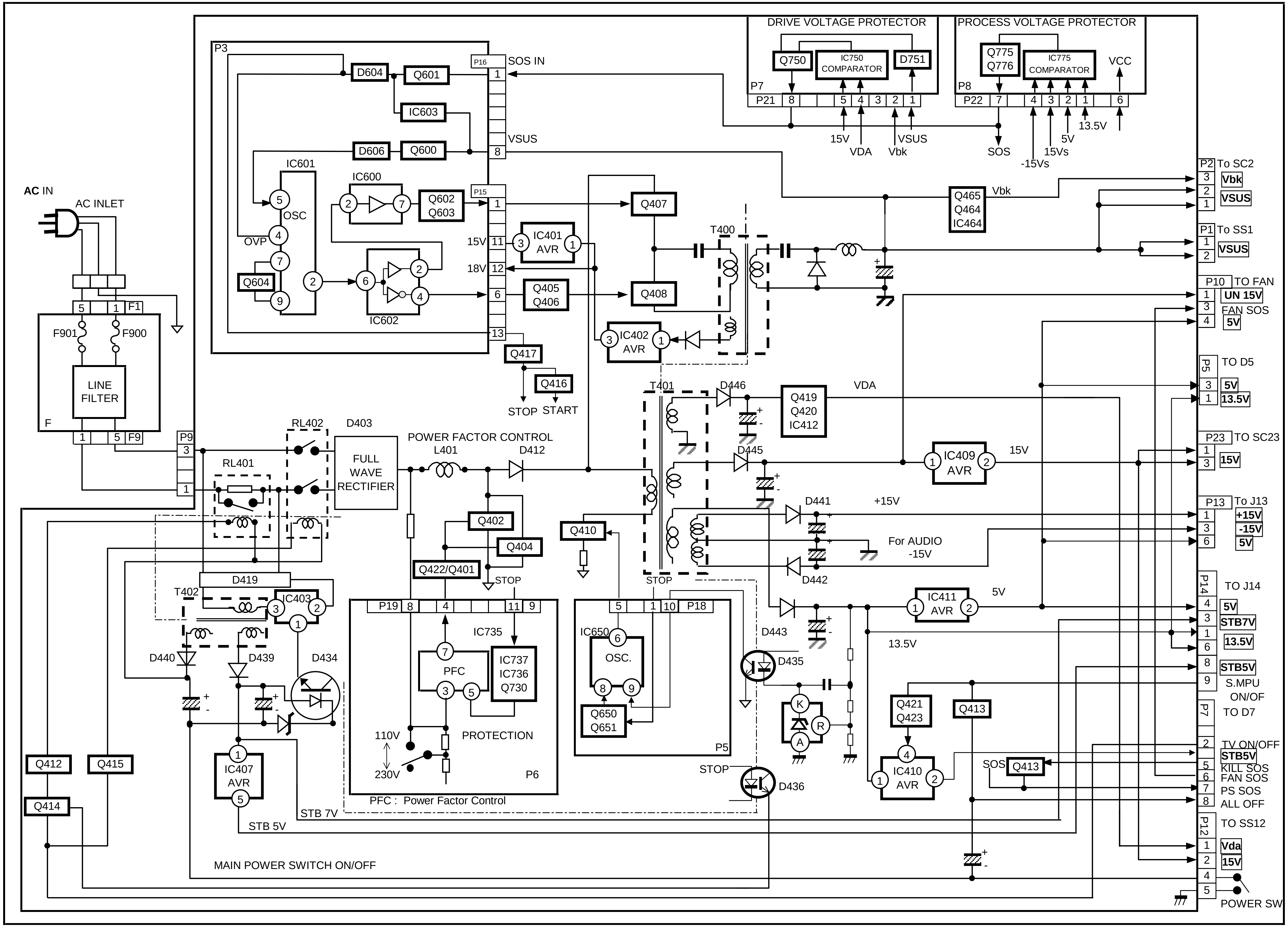
Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

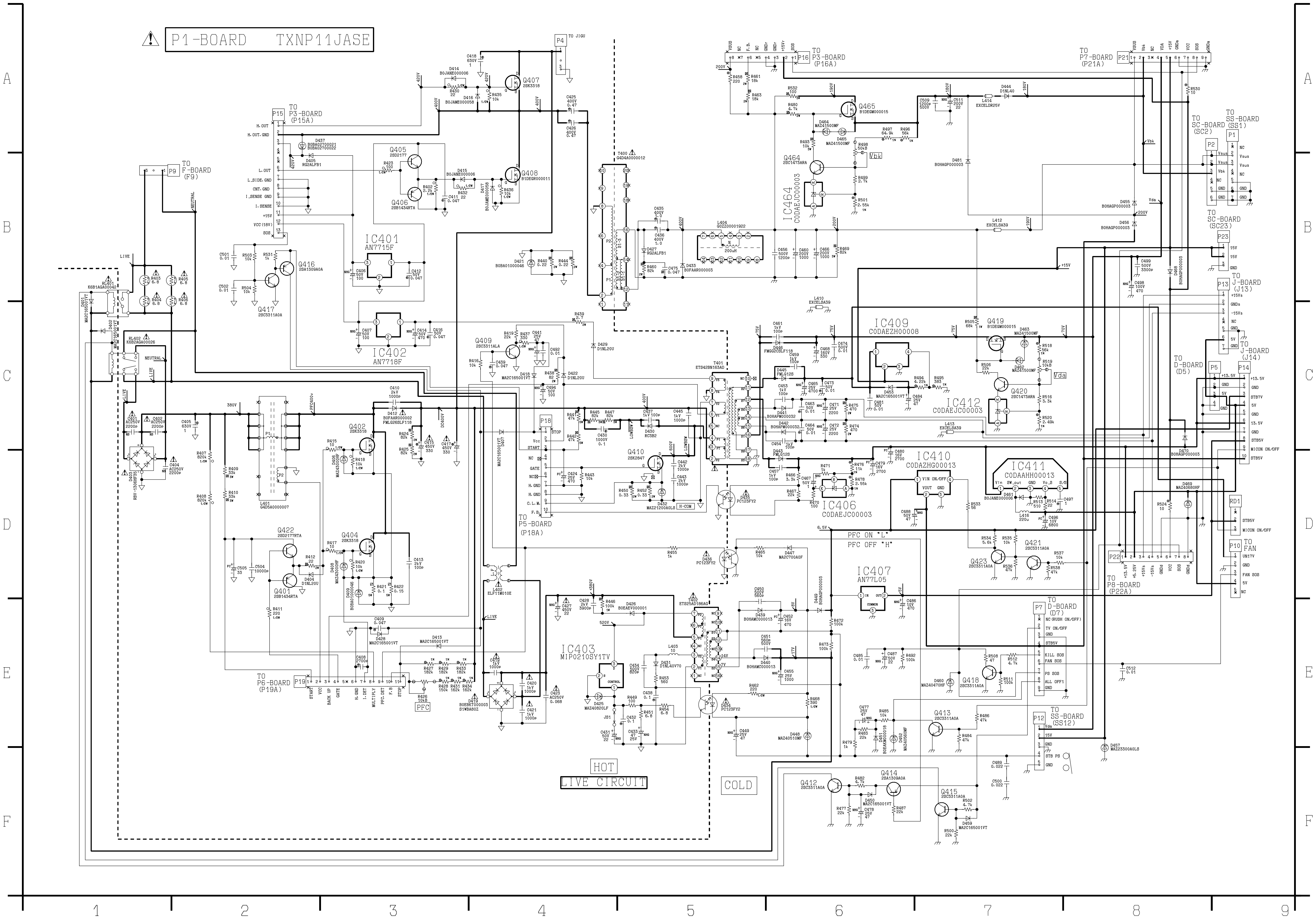
12.2. Main Block Diagram


OUT LINE
S.R.
C1
C13
C14
Vda
C2
C24
C23
C22
D13
D23
SC2
SC23
P23
P2
SU
FF
64
FF
64
FF
64
FF
48
SD
FF
64
FF
64
FF
64
FF
48
SC
SC21
SC20
CONTROL PULSE
SUSTAIN PULSE
SCAN PULSES
VOLTAGE GENERATOR
D
D21
D20
DISCHARGE CONTROL
PLASMA AI
SUB-FIELD PROCESSOR
D5
D7
MAIN MPU
I/P CONV. RGB PROCESSOR
FORMAT CONV.
D9
D8
D43
D35
J9
J8
J
J11
J10
J13
J14
AUDIO AMP
DIGITAL RGB INTERFACE
SYNC. SW
SYNC. SEPARATOR
SUB MPU
AUDIO SW
YUV/RGB SW
J2
J3
H2
H3
HZ
HX
VIDEO/YUV CONVERTE
BUFFER
BUFFER
BUFFER
V/Y SW
INFO. ROM
AV
RGB
AUDIO IN
AV / S-VIDEO
RGB/ HD/VD
COMPONENT
PC
RS232C
P
13.5V
5V
15V
VSUS
Vbk
P5
P21
SUSTAIN VOLTAGE PROTECTOR
SUSTAIN VOLTAGE RECTIFIER
VSUS
P1
P7
SOS
STV 5V
ON/OFF
PROCESS VOLTAGE RECTIFIER
P15
P16
SUSTAIN VOLTAGE CONTROL
P13
+15V
-15V
5V
PROCESS VOLTAGE CONTROL
P18
P22
PROCESS VOLTAGE PROTECTOR
P14
13.5V
15V
5V
STB7V
STB5V
POWER FACTOR CONTROL
P19
PRIMARY CIRCUIT
STAND BY
15V
Vda
P12
STB7V
STB5V
P9
SS
SS2
Vda
SS48
SS1
ADDRESS VOLTAGE (VE)
SUSTAIN PULSE
ERASE PULSE
SS12
SS49
SS33
SS34
REMOTE RECEIVE
POWER LED
V
V34
INPUT
-
+
S
S34
POWER SWITCH
F
F9
LINE FILTER
F1
AC220 - 240V
C4
C43
C49
C48
C41
C35
C39
C34
C38
C31
Vda
C3
C33
H3
+
R
-
SPEAKER TERMINAL
from J10
H3
+
L
-
SPEAKER TERMINAL

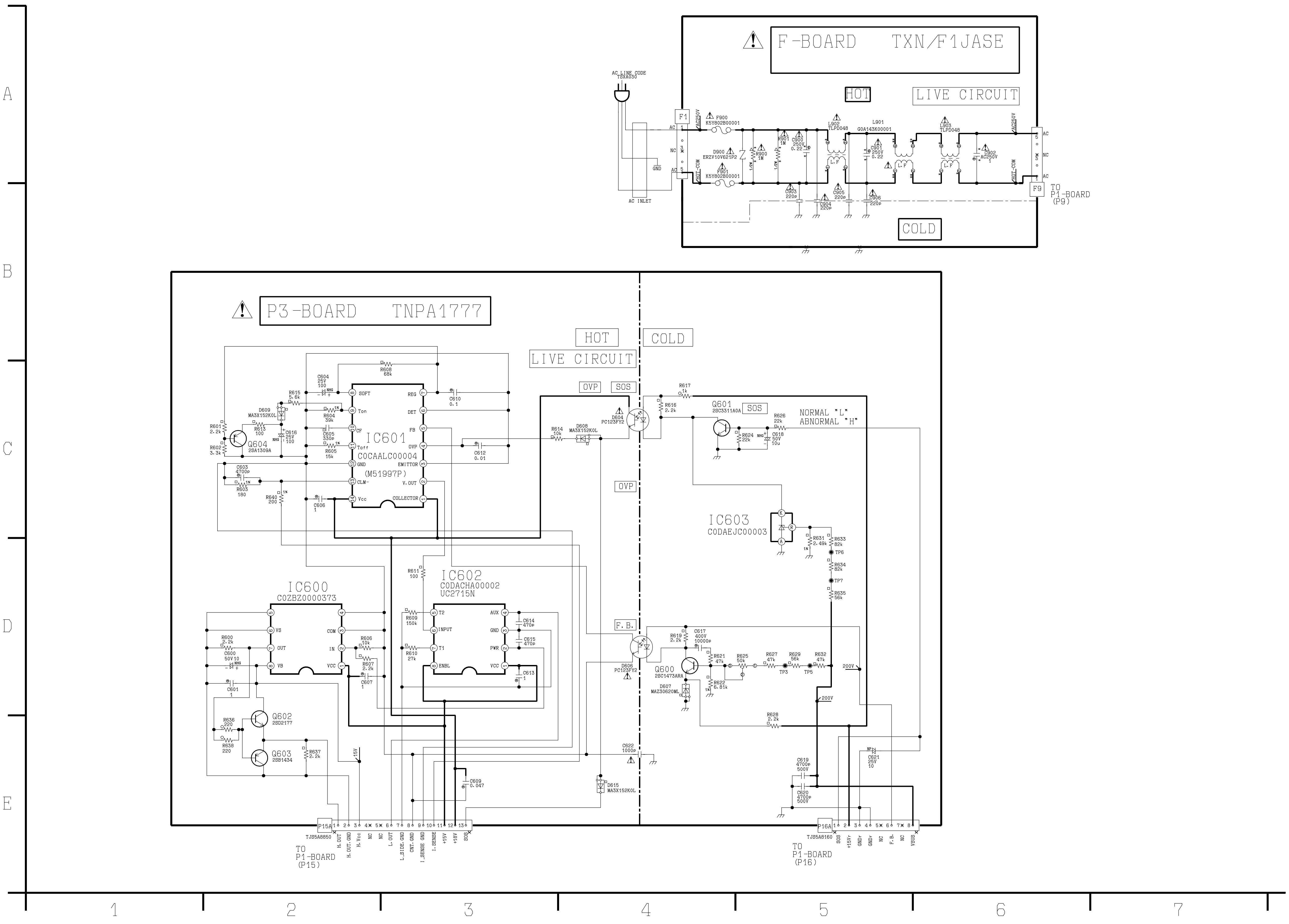
12.3. Power Block Diagram


DRIVE VOLTAGE PROTECTOR
Q750
IC750 COMPARATOR
D751
P7
P21 8 5 4 3 2 1
15V
VDA
VSUS
Vbk
PROCESS VOLTAGE PROTECTOR
Q775 Q776
IC775 COMPARATOR
VCC
P8
P22 7 4 3 2 1 6
13.5V
5V
SOS
15Vs
-15Vs
P3
D604
Q601
P16
SOS IN
IC603
D606
Q600
VSUS
IC601
IC600
5
OSC
OVP
4
7
Q604
9
2
Q602 Q603
P15
6
IC602
15V
18V
13
Q417
Q416
STOP
START
IC401 AVR
Q405 Q406
Q407
Q408
T400
IC402 AVR
Q465 Q464 IC464
Vbk
P2 To SC2
Vbk
VSUS
P1 To SS1
VSUS
P10 TO FAN
UN 15V
FAN SOS
5V
P5 TO D5
5V
13.5V
AC IN
AC INLET
F1
F901
F900
LINE FILTER
F
F9
P9
RL402
D403
RL401
FULL WAVE RECTIFIER
POWER FACTOR CONTROL
L401
D412
Q402
Q404
Q422/Q401
STOP
Q410
T401
D446
Q419 Q420 IC412
VDA
D445
IC409 AVR
15V
P23 TO SC23
15V
D441
+15V
P13 To J13
+15V
-15V
5V
For AUDIO -15V
D442
D419
T402
IC403
P19
IC735
P18
IC650
PFC
IC737 IC736 Q730
OSC.
Q650 Q651
D440
D439
D434
D443
D435
IC411 AVR
5V
P14 TO J14
5V
STB7V
13.5V
STB5V
S.MPU ON/OF
13.5V
K
R
A
Q421 Q423
Q413
P7 TO D7
TV ON/OFF
STB5V
KILL SOS
FAN SOS
PS SOS
ALL OFF
110V
230V
PROTECTION
P6
P5
STOP
D436
IC410 AVR
SOS
Q413
Q412
Q415
IC407 AVR
Q414
STB 7V
STB 5V
PFC : Power Factor Control
MAIN POWER SWITCH ON/OFF
P12 TO SS12
Vda
15V
POWER SW

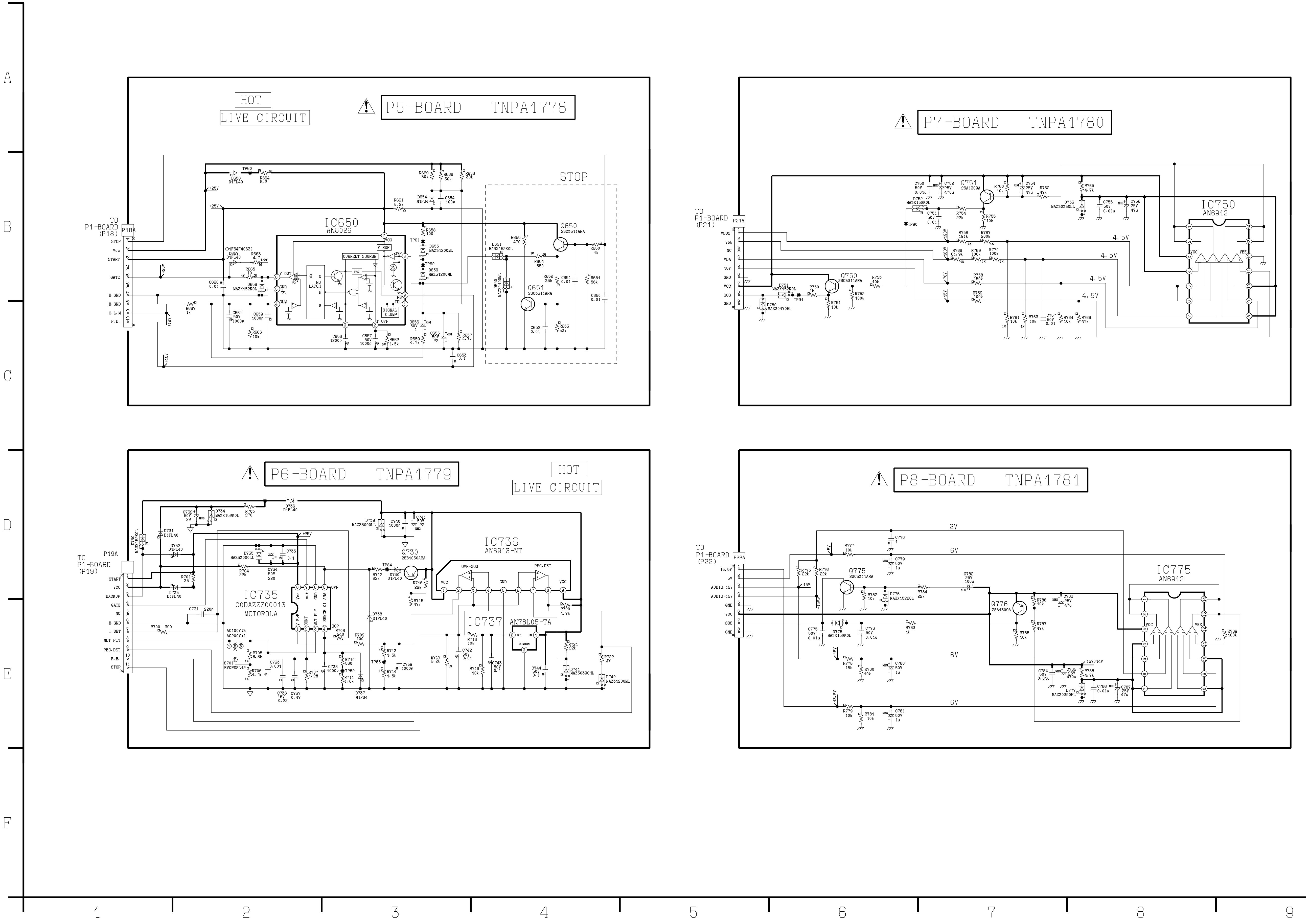
12.4. P1-Board Schematic Diagrams


P1-BOARD TXNP11JASE
TO P3-BOARD (P15A)
TO F-BOARD (F9)
TO J1GU
TO P3-BOARD (P16A)
TO P7-BOARD (P21A)
TO SS-BOARD (SS1)
TO SC-BOARD (SC2)
TO SC-BOARD (SC23)
TO J-BOARD (J13)
TO J-BOARD (J14)
TO D-BOARD (D5)
TO FAN
TO P8-BOARD (P22A)
TO D-BOARD (D7)
TO SS-BOARD (SS12)
TO P5-BOARD (P18A)
TO P6-BOARD (P19A)
IC401 AN7715F
IC402 AN7718F
IC403 MIP0210SY1TV
IC406 C0DAEJC00003
IC407 AN77L05
IC409 C0DAEZH00008
IC410 C0DAZHG00013
IC411 C0DAAHH00013
IC412 C0DAEJC00003
IC464 C0DAEJC00003
T400 G4D4A0000012
T401 ETS428N163AD
T402 ETS25AD186AG
L401 G4D5A0000007
L404 G0ZZ00001922
PFC ON "L"
PFC OFF "H"
HOT
LIVE CIRCUIT
COLD
LIVE
NEUTRAL
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

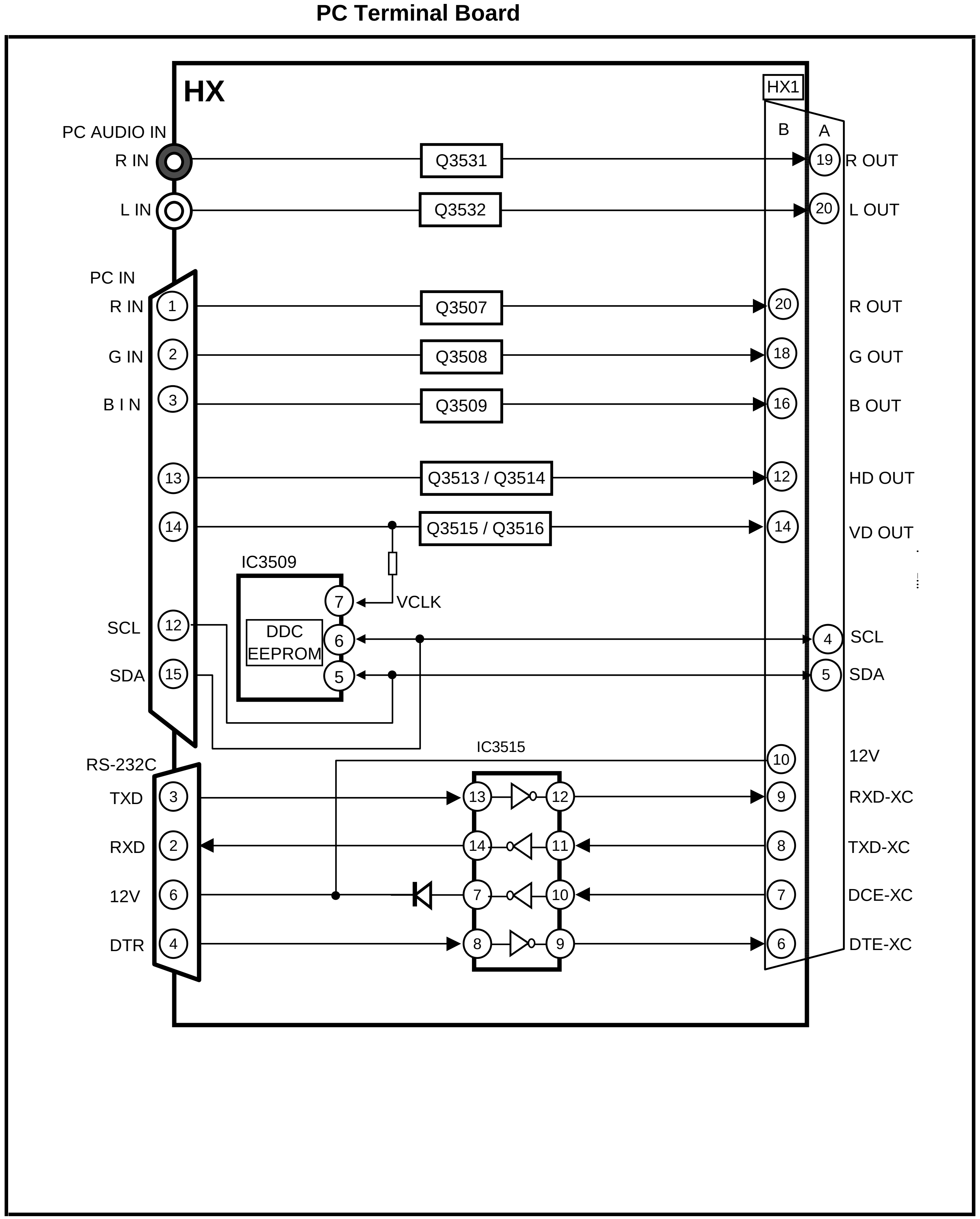
12.5. F and P3-Board Schematic Diagram


A
B
C
D
E
1
2
3
4
5
6
7
F-BOARD TXN/F1JASE
HOT
LIVE CIRCUIT
COLD
AC LINE CODE
TSXA030
AC INLET
GND
F1
AC
NC
AC
AC250V
HOT-COM
F900
K5Y802B00001
F901
K5Y802B00001
D900
ERZV10V621P2
R900
1M
R901
1M
1/2W
C900
250V
0.22
L902
TLPD048
L901
G0A143K00001
L903
TLPD048
L.F
C901
250V
0.22
C902
AC250V
1
C903
220p
C904
220p
C905
220p
C906
220p
F9
TO
P1-BOARD
(P9)
P3-BOARD TNPA1777
HOT
COLD
LIVE CIRCUIT
OVP
SOS
IC601
C0CAALC00004
(M51997P)
SOFT
Ton
CF
Toff
GND
CLM-
Vcc
REG
DET
FB
OVP
EMITTOR
V.OUT
COLLECTOR
R608
68k
C604
25V
100
NHG
R615
5.6k
D609
MA3X152K0L
R604
39k
1%
C605
330p
R605
15k
R601
2.2k
R602
3.3k
R613
100
C616
25V
100
Q604
2SA1309A
C603
4700p
R603
180
R640
200
C606
1
C610
0.1
C612
0.01
R614
10k
D608
MA3X152K0L
D604
PC123FY2
R617
1k
R616
2.2k
Q601
2SC3311A0A
SOS
R624
22k
C618
50V
10u
R626
22k
NORMAL "L"
ABNORMAL "H"
OVP
IC603
C0DAEJC00003
K
R
A
R631
2.49k
R633
82k
TP6
R634
82k
TP7
R635
56k
IC600
C0ZBZ0000373
VS
OUT
VB
COM
IN
VCC
R600
2.2k
C600
50V 10
C601
1
R606
10k
R607
2.2k
C607
1
Q602
2SD2177
Q603
2SB1434
R636
220
R638
220
R637
2.2k
15V
IC602
C0DACHA00002
UC2715N
R611
100
T2
INPUT
T1
ENBL
AUX
GND
PWR
VCC
R609
150k
R610
27k
C614
470p
C615
470p
C613
1
C609
0.047
F.B.
D606
PC123FY2
R619
2.2k
C617
400V
10000p
Q600
2SC1473ARA
R621
47k
R622
6.81k
D607
MAZ30620ML
R625
50k
R627
47k
R629
56k
R632
47k
TP3
TP5
200V
200V
R628
2.2k
C622
1000p
D615
MA3X152K0L
C619
4700p
500V
C620
4700p
500V
C621
25V
10
NP
P15A
TJS5A8850
H.OUT
H.OUT.GND
H.Vcc
NC
NC
L.OUT
L_SIDE.GND
CNT.GND
I_SENSE GND
I.SENSE
+15V
+18V
SOS
TO
P1-BOARD
(P15)
P16A
TJS5A8160
SOS
+15Vr
GNDr
GNDr
NC
F.B.
NC
VSUS
TO
P1-BOARD
(P16)

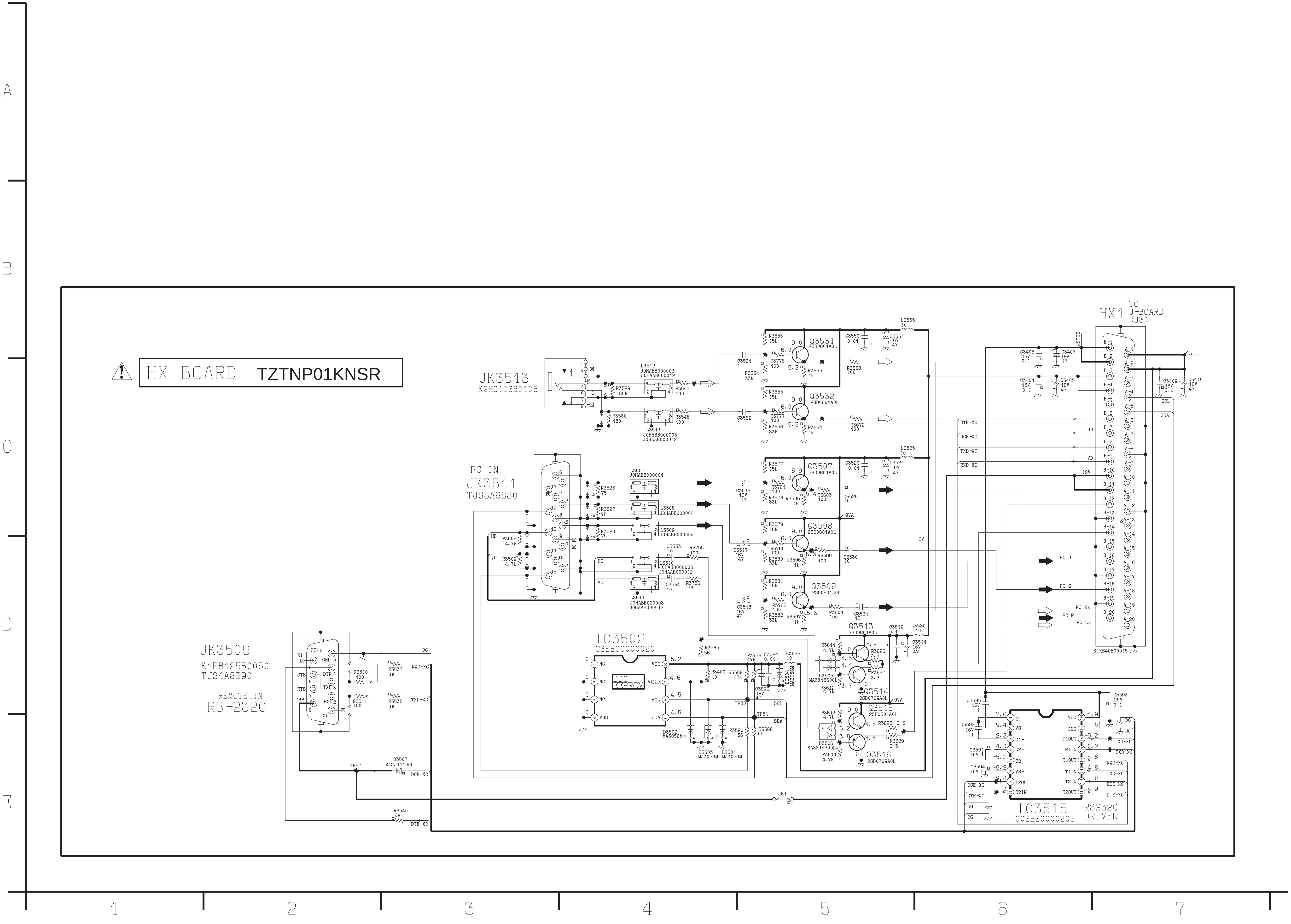
12.6. P5, P6, P7 and P8-Board Schematic diagram


HOT
LIVE CIRCUIT
P5-BOARD TNPA1778
IC650
AN8026
Q650
2SC3311ARA
Q651
2SC3311ARA
STOP
TO P1-BOARD (P18)
P18A
P7-BOARD TNPA1780
IC750
AN6912
Q751
2SA1309A
Q750
2SC3311ARA
TO P1-BOARD (P21)
P21A
4.5V
P6-BOARD TNPA1779
HOT
LIVE CIRCUIT
IC735
C0DAZZZ00013
MOTOROLA
IC736
AN6913-NT
IC737
AN78L05-TA
Q730
2SB1030ARA
TO P1-BOARD (P19)
P19A
P8-BOARD TNPA1781
IC775
AN6912
Q775
2SC3311ARA
Q776
2SA1309A
TO P1-BOARD (P22)
P22A
2V
6V
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

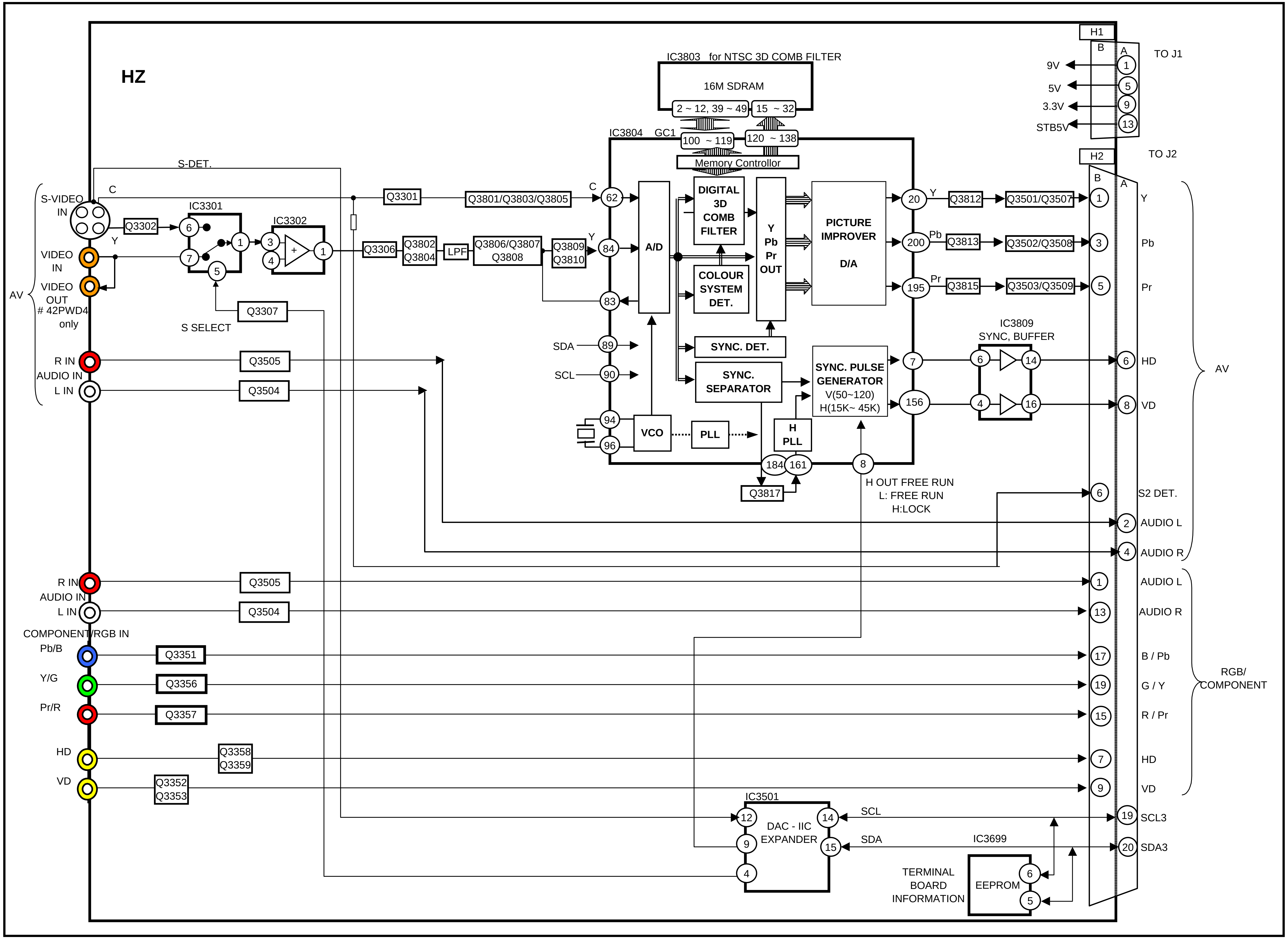
12.7. HX Block Diagram


PC Terminal Board
HX
HX1
B
A
PC AUDIO IN
R IN
L IN
Q3531
Q3532
19
R OUT
20
L OUT
PC IN
R IN
G IN
B I N
1
2
3
13
14
Q3507
Q3508
Q3509
Q3513 / Q3514
Q3515 / Q3516
20
18
16
12
14
R OUT
G OUT
B OUT
HD OUT
VD OUT
IC3509
DDC
EEPROM
7
6
5
VCLK
SCL
12
SDA
15
4
SCL
5
SDA
IC3515
10
12V
RS-232C
TXD
3
RXD
2
12V
6
DTR
4
13
12
14
11
7
10
8
9
9
RXD-XC
8
TXD-XC
7
DCE-XC
6
DTE-XC

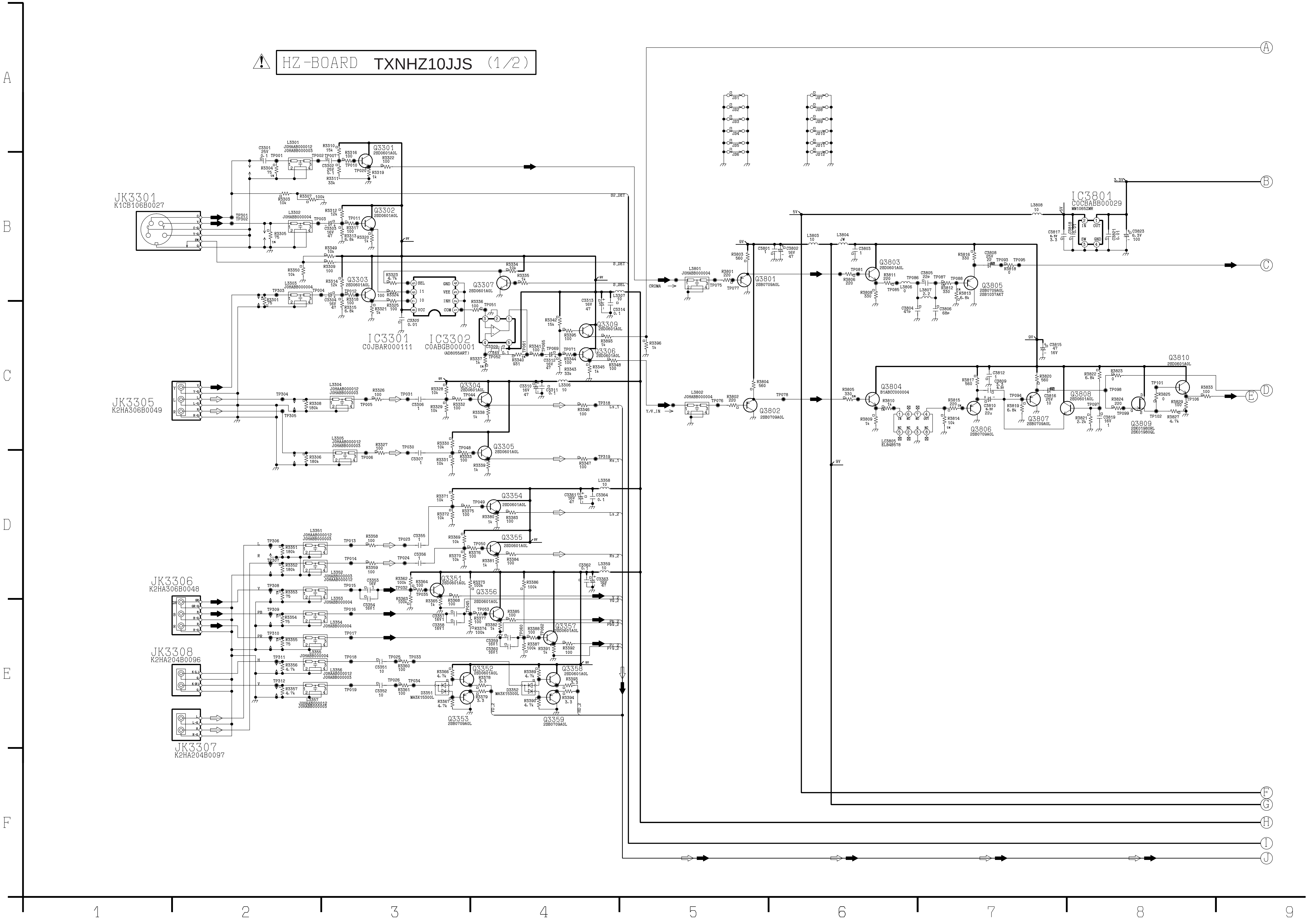
12.8. HX-Board Schematic Diagrams


A
B
C
D
E
1
2
3
4
5
6
7
HX-BOARD TZTNP01KNSR
JK3513
K2HC103B0105
PC IN
JK3511
TJS8A9880
JK3509
K1FB125B0050
TJS4A8390
REMOTE_IN
RS-232C
IC3502
C3EBCC000020
DDC
EEPROM
VCC
VCLK
SCL
SDA
VSS
NC
Q3531
Q3532
Q3507
Q3508
Q3509
Q3513
Q3514
Q3515
Q3516
2SD0601A0L
2SB0709A0L
HX1
TO
J-BOARD
(J3)
K1KB40B00015
IC3515
C0ZBZ0000205
RS232C
DRIVER
DTE-XC
DCE-XC
TXD-XC
RXD-XC
HD
VD
12V
9V
9VA
SCL
SDA
PC B
PC G
PC Rs
PC R
PC Ls
DG
TP80
TP81
TP97
JS1

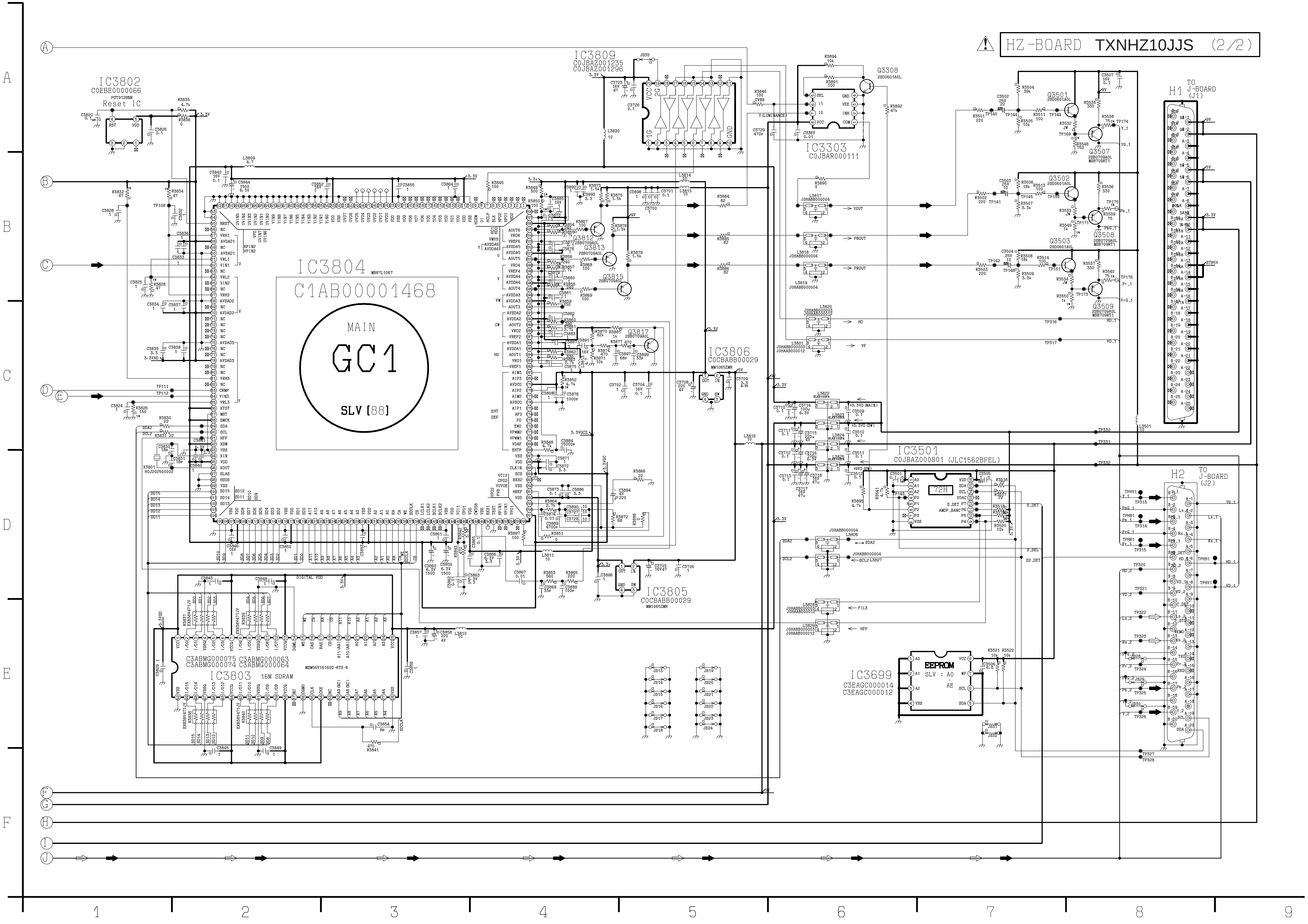
12.9. HZ Block Diagrams


HZ
H1
B
A
TO J1
9V
5V
3.3V
STB5V
1
5
9
13
IC3803 for NTSC 3D COMB FILTER
16M SDRAM
2 ~ 12, 39 ~ 49
15 ~ 32
IC3804 GC1
100 ~ 119
120 ~ 138
Memory Controller
H2
TO J2
S-DET.
S-VIDEO IN
C
Y
IC3301
IC3302
Q3302
Q3301
Q3801/Q3803/Q3805
62
VIDEO IN
VIDEO OUT
# 42PWD4 only
AV
Q3306
Q3802
Q3804
LPF
Q3806/Q3807
Q3808
Q3809
Q3810
84
83
A/D
DIGITAL 3D COMB FILTER
COLOUR SYSTEM DET.
Y Pb Pr OUT
PICTURE IMPROVER
D/A
20
200
195
Y
Pb
Pr
Q3812
Q3813
Q3815
Q3501/Q3507
Q3502/Q3508
Q3503/Q3509
Q3307
S SELECT
SDA
SCL
89
90
SYNC. DET.
SYNC. SEPARATOR
SYNC. PULSE GENERATOR
V(50~120)
H(15K~ 45K)
7
156
IC3809
SYNC, BUFFER
HD
VD
AV
R IN
AUDIO IN
L IN
Q3505
Q3504
94
96
VCO
PLL
H PLL
184
161
8
Q3817
H OUT FREE RUN
L: FREE RUN
H:LOCK
S2 DET.
AUDIO L
AUDIO R
COMPONENT/RGB IN
Pb/B
Y/G
Pr/R
Q3351
Q3356
Q3357
Q3358
Q3359
Q3352
Q3353
B / Pb
G / Y
R / Pr
RGB/
COMPONENT
17
19
15
IC3501
DAC - IIC EXPANDER
12
9
4
14
15
SCL
SDA
IC3699
TERMINAL BOARD INFORMATION
EEPROM
6
5
SCL3
SDA3
20

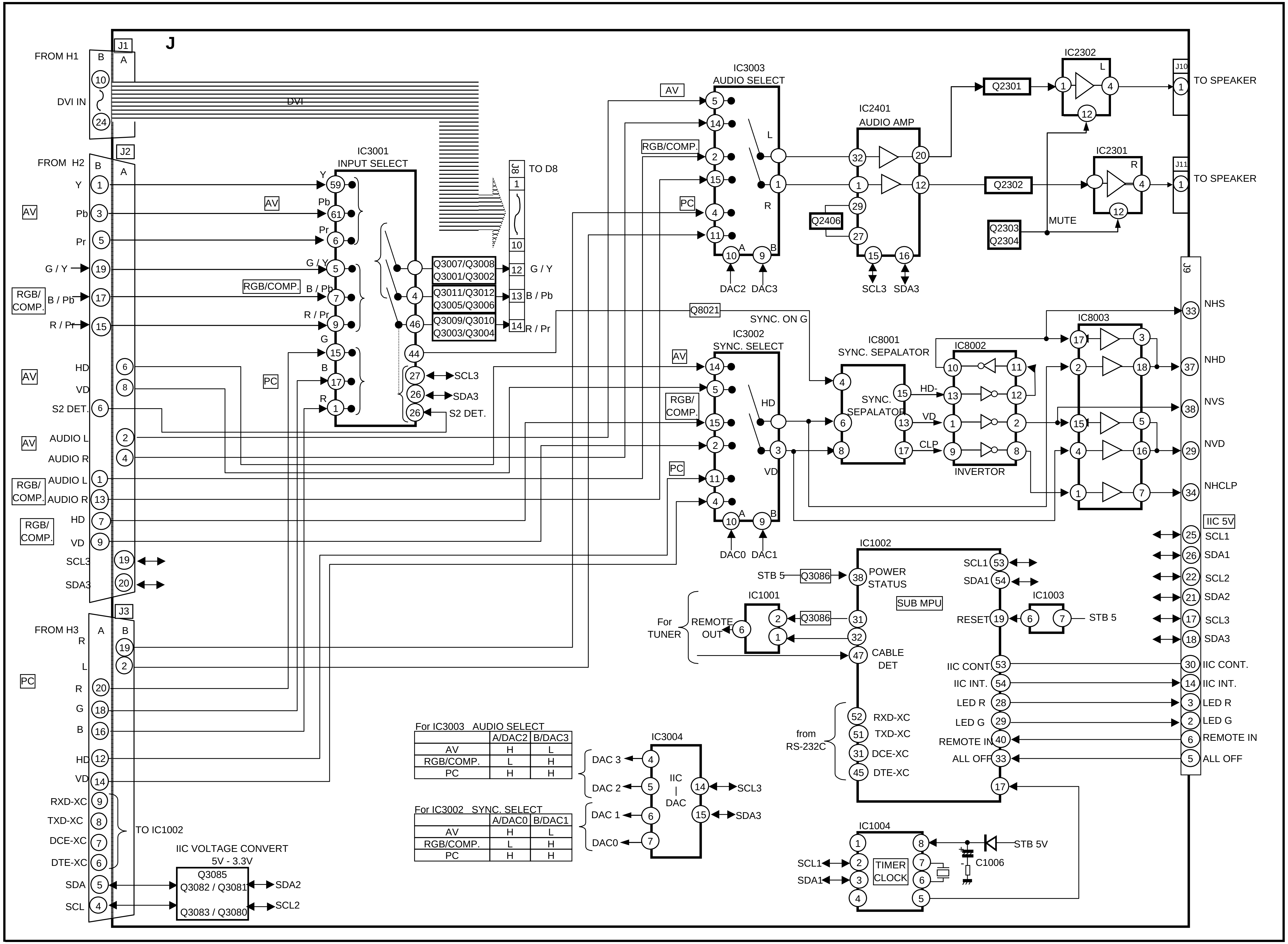
12.10. HZ-Board (1/2) (Option RTB421) Schematic Diagram


HZ-BOARD TXNHZ10JJS (1/2)
JK3301
K1CB106B0027
JK3305
K2HA306B0049
JK3306
K2HA306B0048
JK3308
K2HA204B0096
JK3307
K2HA204B0097
Q3301
Q3302
Q3303
Q3304
Q3305
Q3306
Q3307
Q3309
IC3301
C0JBAR000111
IC3302
C0ABGB000001
(AD8055ART)
Q3351
Q3352
Q3353
Q3354
Q3355
Q3356
Q3357
Q3358
Q3359
Q3801
Q3802
Q3803
Q3804
Q3805
Q3806
Q3807
Q3808
Q3809
Q3810
IC3801
C0CBABB00029
CROMA
Y/V_IN
S2_DET
S_DET
S_SEL
9V
5V
3.3V
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9

12.11. HZ-Board (2/2) (Option RTB421) Schematic Diagram


HZ-BOARD TXNHZ10JJS (2/2)
IC3802
C0EBE0000066
PST9128NR
Reset IC
IC3809
C0JBAZ001235
C0JBAZ001296
Q3308
2SD0601A0L
IC3303
C0JBAR000111
IC3804
MB87L1067
C1AB00001468
MAIN
GC1
SLV [88]
IC3806
C0CBABB00029
MM1065ZMR
IC3805
C0CBABB00029
MM1065ZMR
IC3501
C0JBAZ000801 (JLC1562BFEL)
IC3803
16M SDRAM
C3ABMG000075 C3ABMG000063
C3ABMG000074 C3ABMG000064
MSM56V16160D-8TS-K
DIGITAL VDD
IC3699
C3EAGC000014
C3EAGC000012
EEPROM
SLV : A0
AE
Q3501
2SD0601A0L
Q3502
2SD0601A0L
Q3503
2SD0601A0L
Q3507
2SB0709A0L
Q3508
2SB0709A0L
Q3509
2SB0709A0L
Q3812
Q3813
Q3815
Q3817
H1
TO J-BOARD (J1)
H2
TO J-BOARD (J2)
YOUT
PBOUT
PROUT
HD
VD
FIL3
HFP
SDA2
SCL2
Y (LUMINANCE)
X3801
HOJ202500002
Y_1
Pb_1
Pr_1
YG_1
PbG_1
PrG_1
HD_1
VD_1
HD_2
VD_2
B_SEL
B2_DET
S_DET
3.3V
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

12.12. J-Board Block Diagrams


J
J1
FROM H1
DVI IN
DVI
J2
FROM H2
Y
Pb
Pr
G / Y
B / Pb
R / Pr
HD
VD
S2 DET.
AUDIO L
AUDIO R
SCL3
SDA3
J3
FROM H3
TO IC1002
RXD-XC
TXD-XC
DCE-XC
DTE-XC
SDA
SCL
AV
RGB/COMP.
PC
IC3001
INPUT SELECT
Q3007/Q3008
Q3001/Q3002
Q3011/Q3012
Q3005/Q3006
Q3009/Q3010
Q3003/Q3004
J8
TO D8
S2 DET.
IC3003
AUDIO SELECT
DAC2
DAC3
IC2401
AUDIO AMP
Q2406
IC2302
IC2301
Q2301
Q2302
Q2303
Q2304
MUTE
J10
J11
TO SPEAKER
TO SPEAKER
Q8021
SYNC. ON G
IC3002
SYNC. SELECT
HD
VD
DAC0
DAC1
IC8001
SYNC. SEPALATER
SYNC. SEPALATOR
HD-
VD
CLP
IC8002
INVERTOR
IC8003
J9
NHS
NHD
NVS
NVD
NHCLP
IIC 5V
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
IIC CONT.
IIC INT.
LED R
LED G
REMOTE IN
ALL OFF
IC1002
SUB MPU
POWER STATUS
STB 5
Q3086
IC1001
For TUNER
REMOTE OUT
CABLE DET
RESET
IC1003
STB 5
from RS-232C
RXD-XC
TXD-XC
DCE-XC
DTE-XC
IC3004
IIC | DAC
DAC 3
DAC 2
DAC 1
DAC0
SCL3
SDA3
IC1004
TIMER CLOCK
SCL1
SDA1
STB 5V
C1006
IIC VOLTAGE CONVERT
5V - 3.3V
Q3085
Q3082 / Q3081
Q3083 / Q3080
SDA2
SCL2

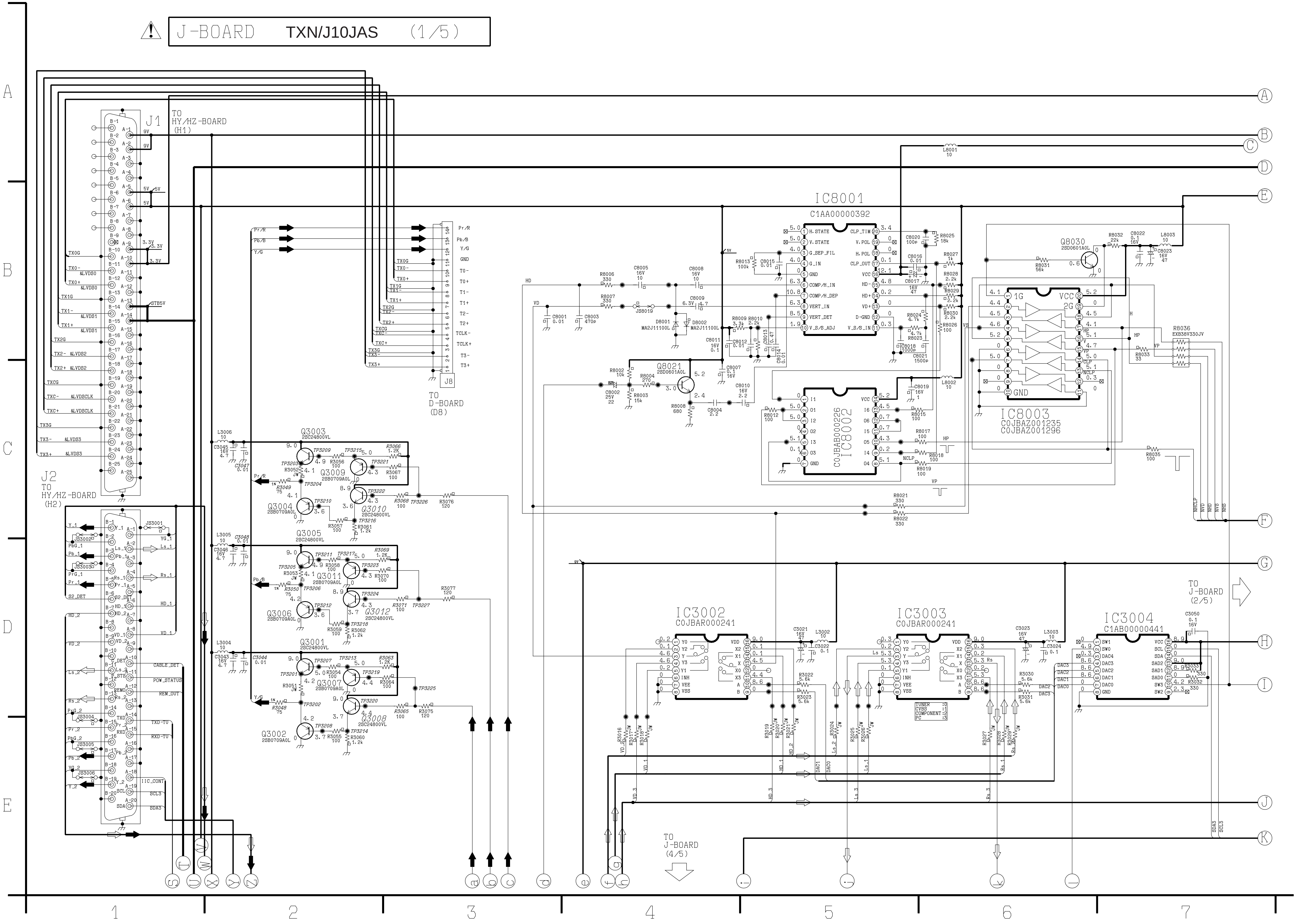
For IC3003 AUDIO SELECT

	A/DAC2	B/DAC3
AV	H	L
RGB/COMP.	L	H
PC	H	H

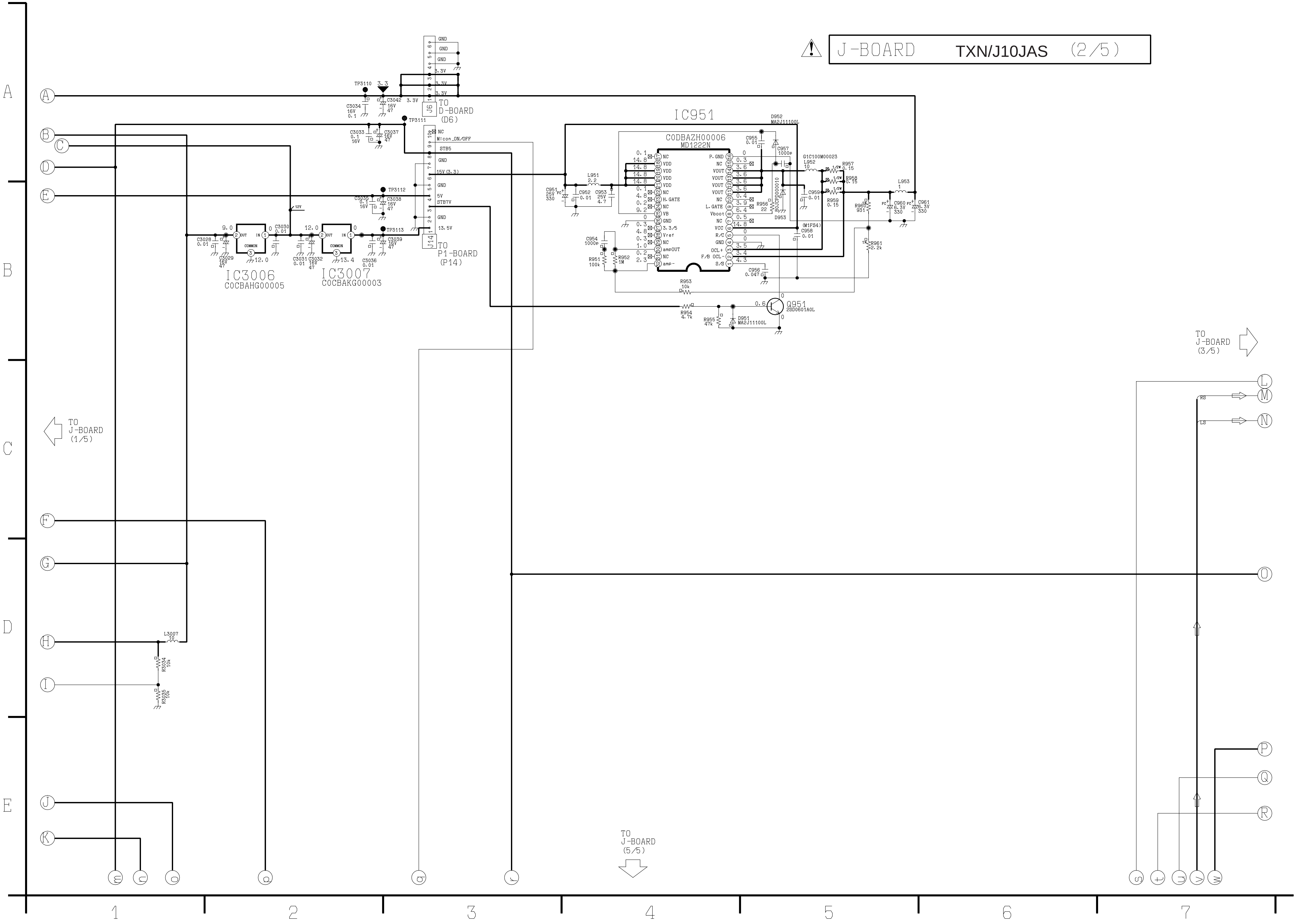
For IC3002 SYNC. SELECT

	A/DAC0	B/DAC1
AV	H	L
RGB/COMP.	L	H
PC	H	H

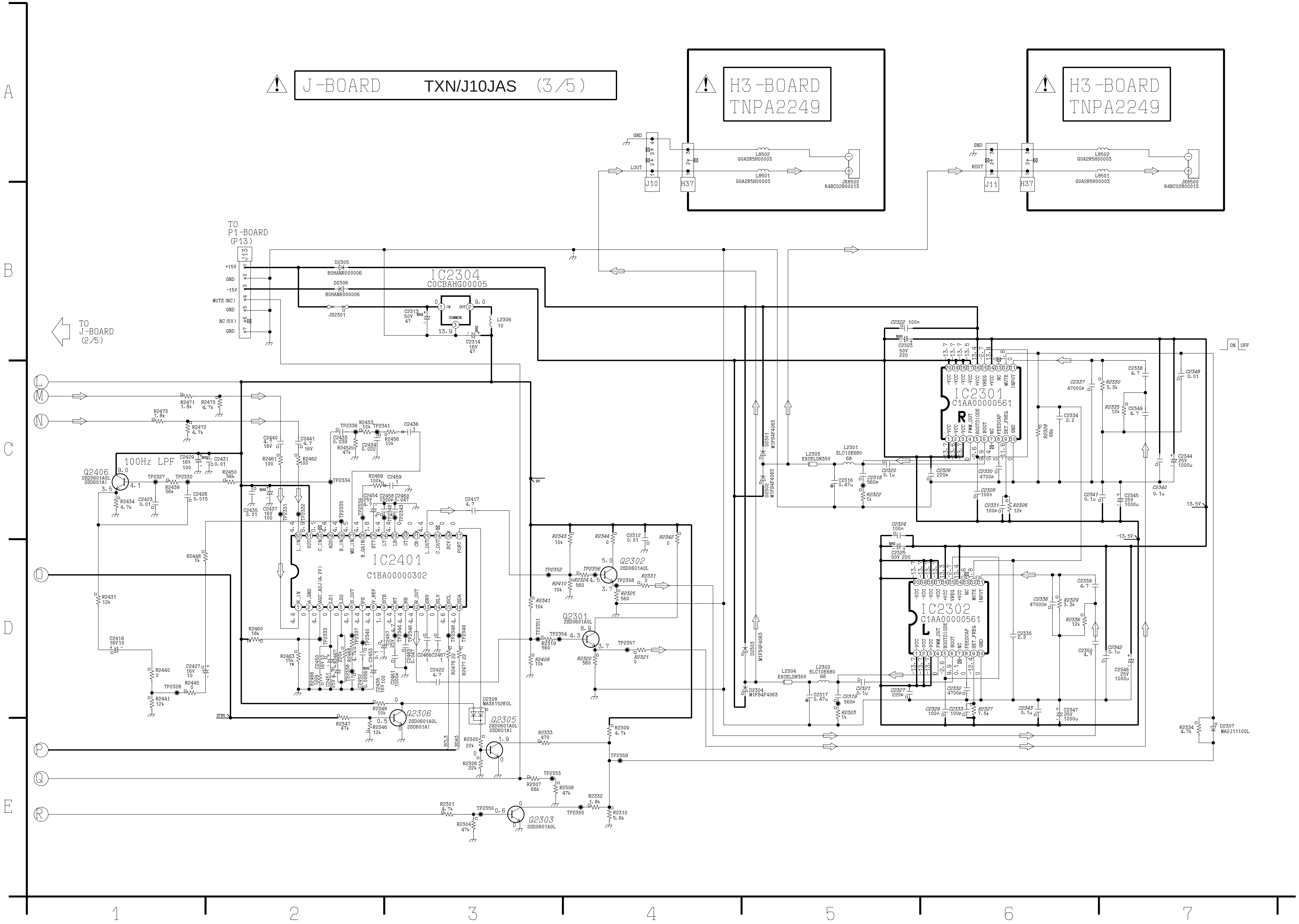
12.13. J-Board (1/5) Schematic Diagrams


J-BOARD TXN/J10JAS (1/5)
J1
TO HY/HZ-BOARD (H1)
J2
TO HY/HZ-BOARD (H2)
J8
TO D-BOARD (D8)
IC8001
C1AA00000392
IC8002
C0JBAB000226
IC8003
C0JBAZ001235
C0JBAZ001296
IC3002
C0JBAR000241
IC3003
C0JBAR000241
IC3004
C1AB00000441
Q8021
Q8030
Q3001
Q3002
Q3003
Q3004
Q3005
Q3006
Q3007
Q3008
Q3009
Q3010
Q3011
Q3012
TO J-BOARD (2/5)
TO J-BOARD (4/5)
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7

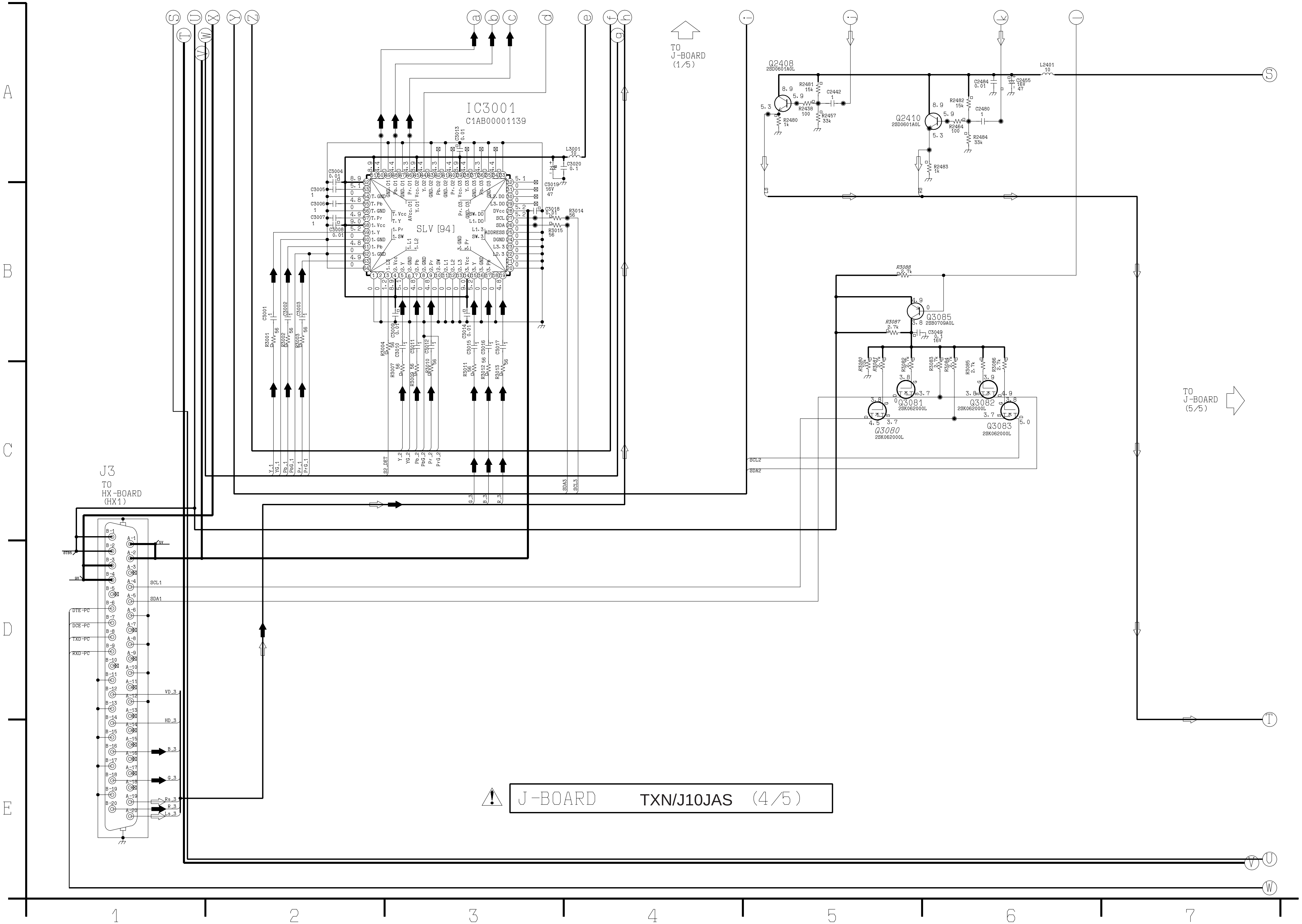
12.14. J-Board (2/5) Schematic Diagrams


J-BOARD TXN/J10JAS (2/5)
IC951
C0DBAZH00006
MD1222N
IC3006
C0CBAHG00005
IC3007
C0CBAKG00003
J6
TO D-BOARD (D6)
J14
TO P1-BOARD (P14)
Q951
2SD0601A0L
D951
MA2J11100L
D952
MA2J11100L
D953
L951
L952
L953
L3007
TO J-BOARD (1/5)
TO J-BOARD (3/5)
TO J-BOARD (5/5)
TP3110
TP3111
TP3112
TP3113
Micon_ON/OFF
STB5
STB7V
15V(3.3)
5V
13.5V
GND
3.3V
NC
VDD
VOUT
P.GND
H.GATE
L.GATE
Vboot
VCC
R/C
OCL+
OCL-
F/B
S/B
Vref
ampOUT
amp-
RS
LS
A
B
C
D
E
1
2
3
4
5
6
7

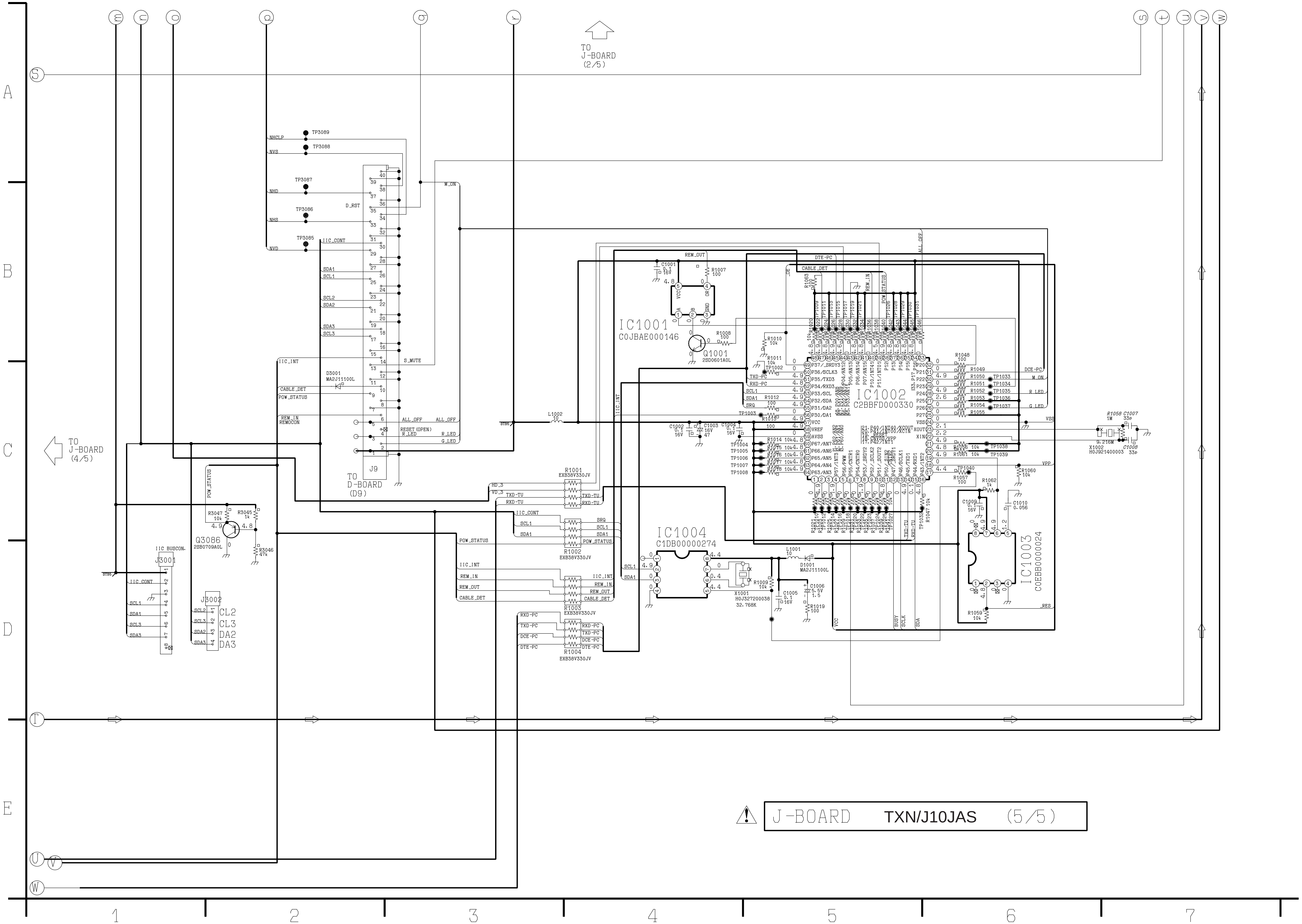
12.15. J-Board (3/5) and H3-Board Schematic Diagrams


J-BOARD TXN/J10JAS (3/5)
H3-BOARD TNPA2249
H3-BOARD TNPA2249
TO P1-BOARD (P13)
J13
TO J-BOARD (2/5)
IC2304
C0CBAHG00005
IC2401
C1BA00000302
IC2301
C1AA00000561
R
IC2302
C1AA00000561
L
100Hz LPF
Q2406
Q2301
Q2302
Q2303
Q2305
Q2306
J10
J11
H37
JK8500
K4BC02B00013
L8501
L8502
G0A2R5H00003
LOUT
ROUT
GND
+15V
-15V
MUTE (NC)
NC (5V)
D2305
D2306
B0HANR000006
D2307
MA3J11100L
D2308
MA3X152E0L
L2301
L2302
ELC10E680
L2303
L2304
EXCELDR35V
D2301
D2302
D2303
D2304
M1FS4F4063
ON
OFF
13.5V
-13.5V
A
B
C
D
E
1
2
3
4
5
6
7
L
M
N
O
P
Q
R

12.16. J-Board (4/5) Schematic Diagrams

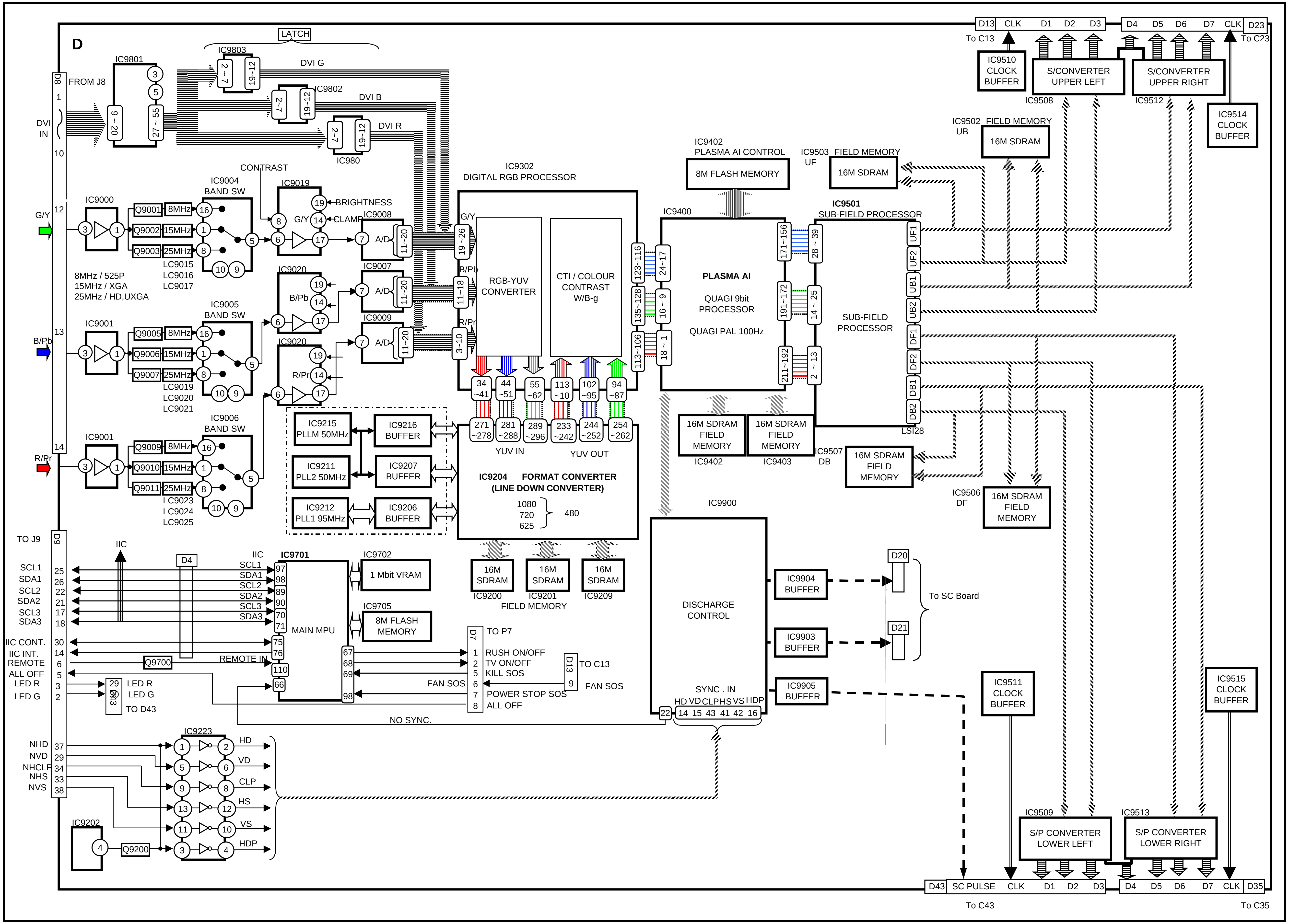

IC3001
C1AB00001139
SLV [94]
J3
TO HX-BOARD (HX1)
TO J-BOARD (1/5)
TO J-BOARD (5/5)
Q2408 2SD0601A0L
Q2410 2SD0601A0L
Q3085 2SB0709A0L
Q3080 2SK062000L
Q3081 2SK062000L
Q3082 2SK062000L
Q3083 2SK062000L
L2401 10
L3001 10
J-BOARD TXN/J10JAS (4/5)

12.17. J-Board (5/5) Schematic Diagrams

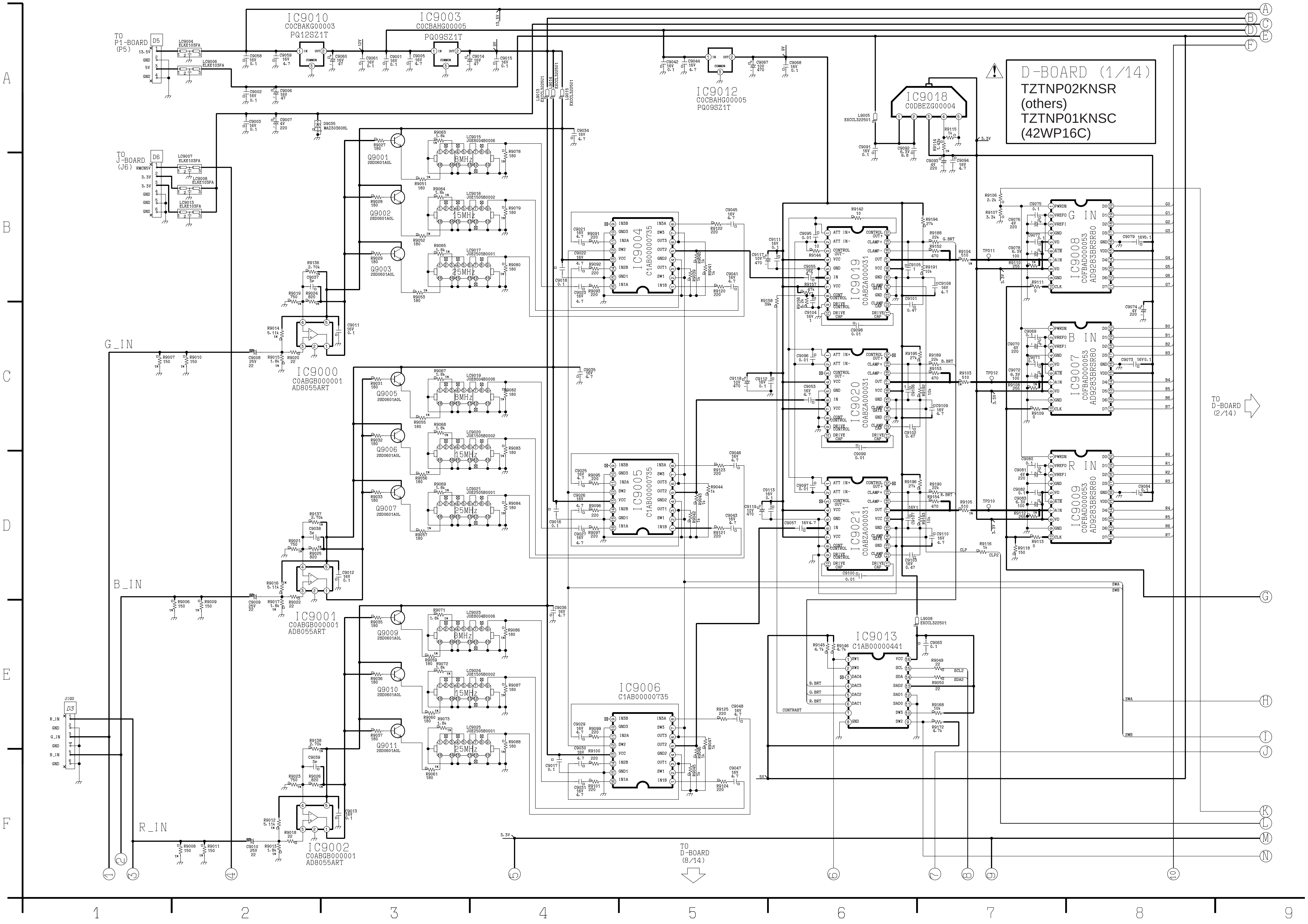

TO J-BOARD (2/5)
TO J-BOARD (4/5)
TO D-BOARD (D9)
J9
IC1001
C0JBAE000146
Q1001
2SD0601A0L
IC1002
C2BBFD000330
IC1003
C0EBB0000024
IC1004
C1DB00000274
Q3086
2SB0709A0L
D3001
MA2J11100L
D1001
MA2J11100L
J3001
IIC BUSCON.
J3002
CL2
CL3
DA2
DA3
R1001
R1002
R1003
R1004
EXB38V330JV
X1001
H0J327200038
32.768K
X1002
H0J921400003
L1001
L1002
NHCLP
NVS
NHD
NHS
NVD
D_RST
IIC_CONT
IIC_INT
SDA1
SCL1
SDA2
SCL2
SDA3
SCL3
S_MUTE
M_ON
CABLE_DET
POW_STATUS
REM_IN
REMOCON
REM_OUT
ALL_OFF
RESET(OPEN)
R_LED
G_LED
TXD-TU
RXD-TU
TXD-PC
RXD-PC
DCE-PC
DTE-PC
SRQ
VPP
VSS
RES
A
B
C
D
E
1
2
3
4
5
6
7

J-BOARD TXN/J10JAS (5/5)

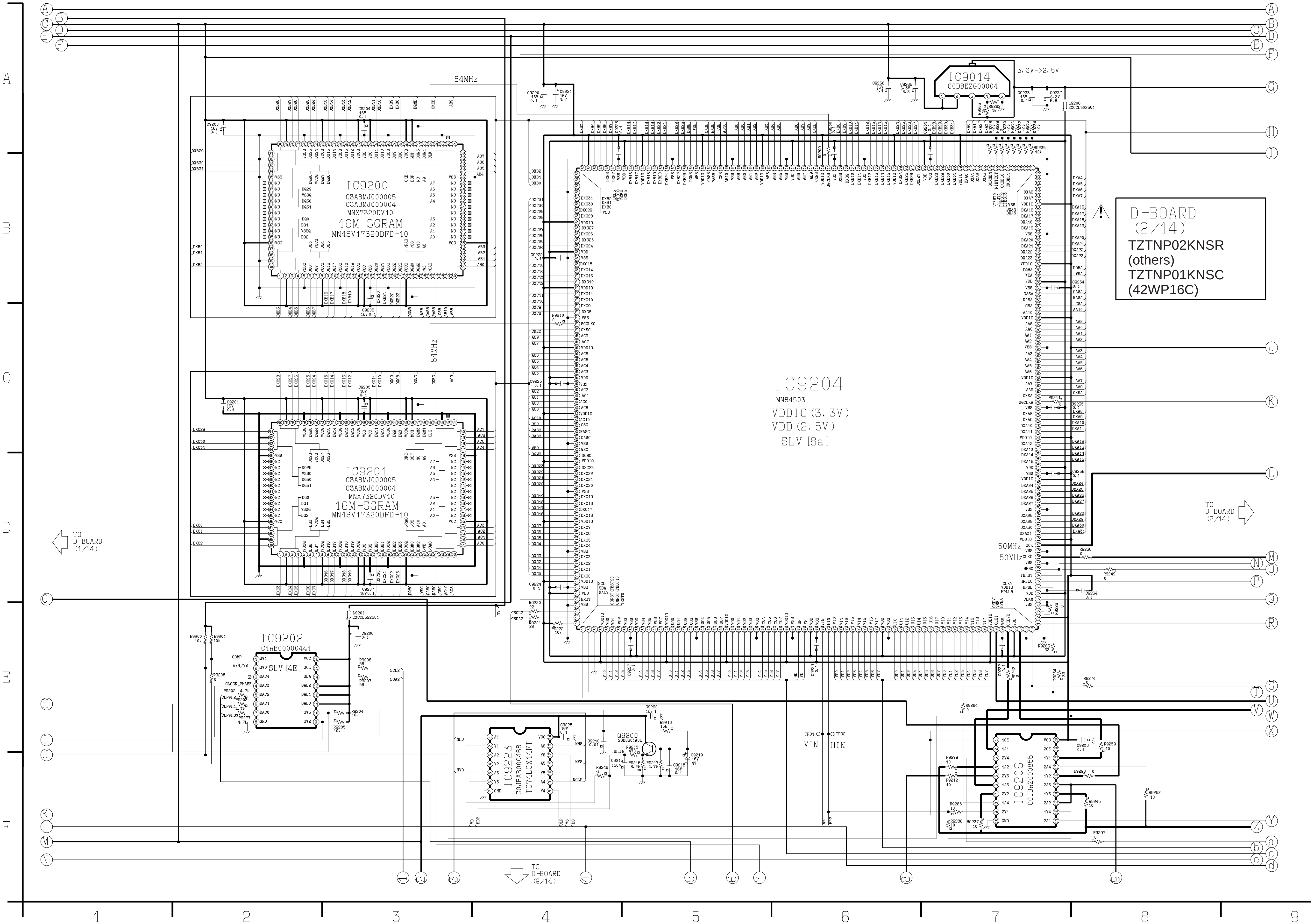
12.18. D-Block Diagrams


D
FROM J8
D8
DVI IN
1
10
IC9801
9 ~ 20
27 ~ 55
3
5
LATCH
IC9803
2 ~ 7
19 ~ 12
DVI G
IC9802
DVI B
IC980
DVI R
CONTRAST
IC9004
BAND SW
IC9019
BRIGHTNESS
G/Y
CLAMP
IC9008
A/D
11 ~ 20
IC9000
G/Y
12
Q9001
8MHz
Q9002
15MHz
Q9003
25MHz
LC9015
LC9016
LC9017
8MHz / 525P
15MHz / XGA
25MHz / HD,UXGA
IC9020
B/Pb
IC9007
IC9005
BAND SW
IC9001
B/Pb
13
Q9005
Q9006
Q9007
LC9019
LC9020
LC9021
R/Pr
IC9009
IC9006
BAND SW
IC9001
R/Pr
14
Q9009
Q9010
Q9011
LC9023
LC9024
LC9025
IC9302
DIGITAL RGB PROCESSOR
19 ~ 26
11 ~ 18
3 ~ 10
RGB-YUV CONVERTER
CTI / COLOUR CONTRAST W/B-g
34 ~41
44 ~51
55 ~62
113 ~10
102 ~95
94 ~87
271 ~278
281 ~288
289 ~296
233 ~242
244 ~252
254 ~262
YUV IN
YUV OUT
IC9215 PLLM 50MHz
IC9216 BUFFER
IC9211 PLL2 50MHz
IC9207 BUFFER
IC9212 PLL1 95MHz
IC9206 BUFFER
IC9204 FORMAT CONVERTER
(LINE DOWN CONVERTER)
1080
720
625
480
16M SDRAM
IC9200
IC9201
IC9209
FIELD MEMORY
IC9402
PLASMA AI CONTROL
8M FLASH MEMORY
IC9400
123 ~ 116
135 ~ 128
113 ~ 106
24 ~ 17
16 ~ 9
18 ~ 1
PLASMA AI
QUAGI 9bit PROCESSOR
QUAGI PAL 100Hz
171 ~ 156
191 ~ 172
211 ~ 192
28 ~ 39
14 ~ 25
2 ~ 13
16M SDRAM FIELD MEMORY
IC9402
IC9403
IC9503 FIELD MEMORY
UF
16M SDRAM
IC9501
SUB-FIELD PROCESSOR
SUB-FIELD PROCESSOR
UF1
UF2
UB1
UB2
DF1
DF2
DB1
DB2
LSI28
IC9502 FIELD MEMORY
UB
IC9507
DB
IC9506
DF
D13
CLK
D1
D2
D3
D4
D5
D6
D7
D23
To C13
To C23
IC9510 CLOCK BUFFER
S/CONVERTER UPPER LEFT
S/CONVERTER UPPER RIGHT
IC9508
IC9512
IC9514 CLOCK BUFFER
IC9900
DISCHARGE CONTROL
SYNC . IN
HD VD CLP HS VS HDP
22
14 15 43 41 42 16
IC9904 BUFFER
IC9903 BUFFER
IC9905 BUFFER
D20
D21
To SC Board
IC9511 CLOCK BUFFER
IC9515 CLOCK BUFFER
IC9509
S/P CONVERTER LOWER LEFT
IC9513
S/P CONVERTER LOWER RIGHT
D43
SC PULSE
D35
To C43
To C35
TO J9
D9
IIC
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
25
26
22
21
17
18
IIC CONT.
IIC INT.
REMOTE
ALL OFF
LED R
LED G
30
14
6
5
3
2
D4
Q9700
REMOTE IN
D43
29
30
LED R
LED G
TO D43
IC9701
MAIN MPU
97
98
89
90
70
71
75
76
110
66
67
68
69
98
IC9702
1 Mbit VRAM
IC9705
8M FLASH MEMORY
D7
TO P7
1 RUSH ON/OFF
2 TV ON/OFF
5 KILL SOS
6
7 POWER STOP SOS
8 ALL OFF
FAN SOS
D13
TO C13
9
FAN SOS
NO SYNC.
NHD
NVD
NHCLP
NHS
NVS
37
29
34
33
38
IC9223
HD
VD
CLP
HS
VS
HDP
IC9202
Q9200

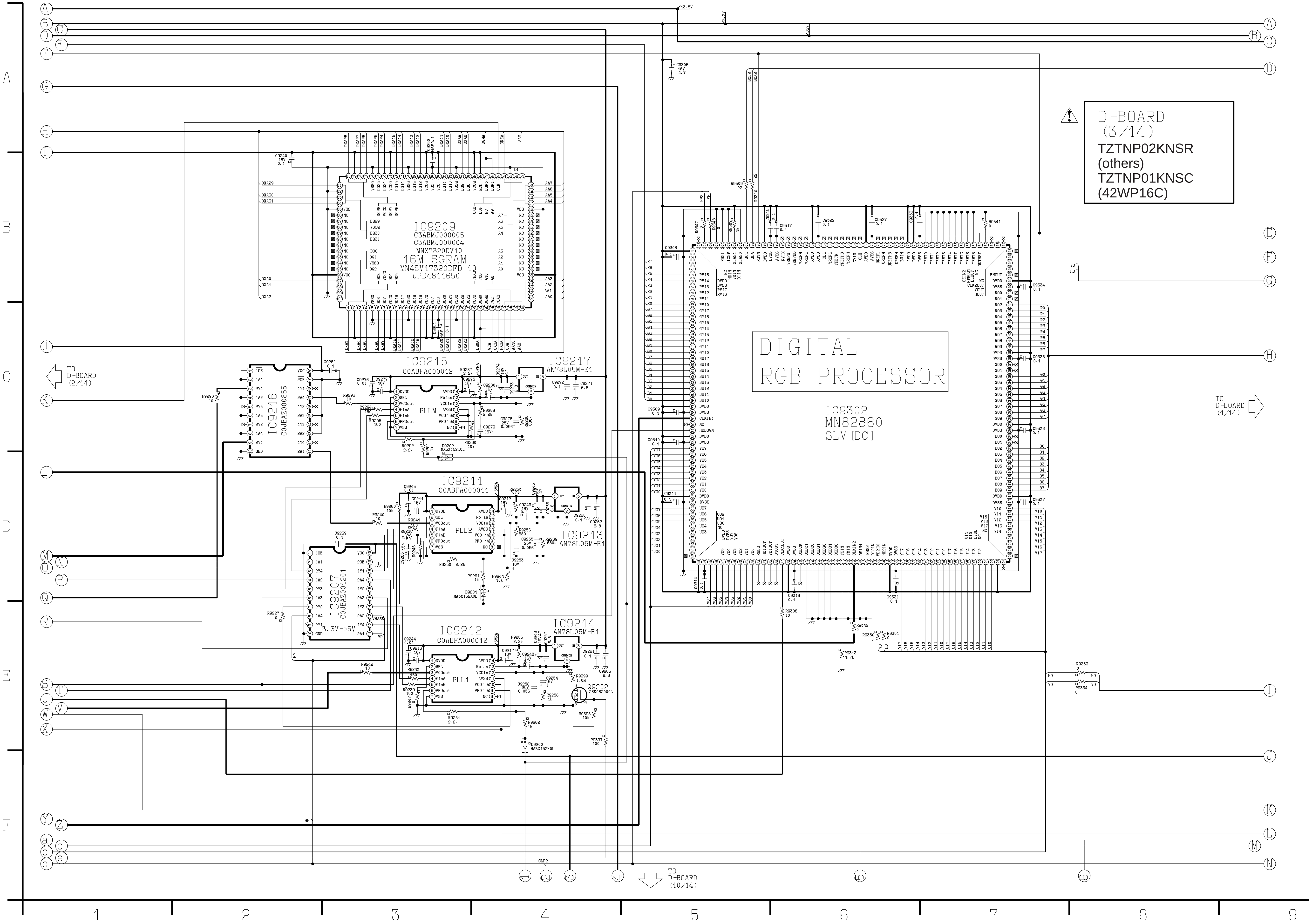
12.19. D-Board (1/14) Schematic Diagrams


D-BOARD (1/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
IC9010
C0CBAKG00003
PQ12SZ1T
IC9003
C0CBAHG00005
PQ09SZ1T
IC9012
C0CBAHG00005
PQ09SZ1T
IC9018
C0DBEZG00004
TO
P1-BOARD
(P5)
D5
TO
J-BOARD
(J6)
D6
G_IN
B_IN
R_IN
IC9000
C0ABGB000001
AD8055ART
IC9001
C0ABGB000001
AD8055ART
IC9002
C0ABGB000001
AD8055ART
Q9001
Q9002
Q9003
Q9005
Q9006
Q9007
Q9009
Q9010
Q9011
2SD0601A0L
8MHz
15MHz
25MHz
IC9004
IC9005
IC9006
C1AB00000735
IC9019
IC9020
IC9021
C0ABZA000031
IC9008
IC9007
IC9009
C0FBAD000053
AD9283BRSR80
G IN
B IN
R IN
IC9013
C1AB00000441
J1GU
D3
R_IN
GND
G_IN
GND
B_IN
GND
TO
D-BOARD
(2/14)
TO
D-BOARD
(8/14)
A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9

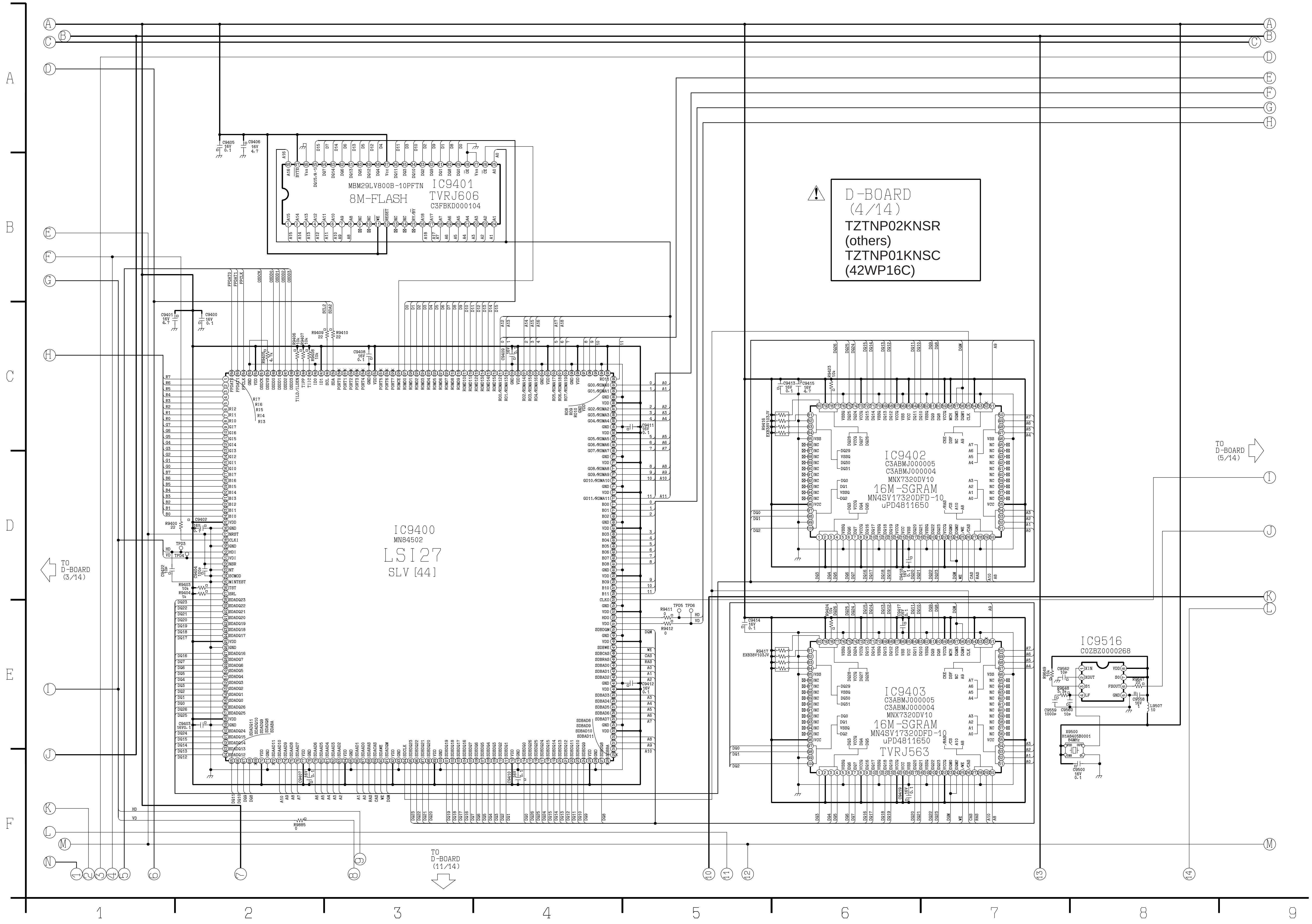
12.20. D-Board (2/14) Schematic Diagrams


IC9200
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
IC9201
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
84MHz
IC9014
C0DBEZG00004
3.3V->2.5V
IC9204
MN84503
VDDIO(3.3V)
VDD(2.5V)
SLV[8a]
50MHz
D-BOARD
(2/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
TO
D-BOARD
(1/14)
TO
D-BOARD
(2/14)
IC9202
C1AB00000441
SLV[4E]
IC9223
C0JBAB000468
TC74LCX14FT
Q9200
2SD0601ASL
TPD1
TPD2
VIN
HIN
IC9206
C0JBAZ000855
TO
D-BOARD
(9/14)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

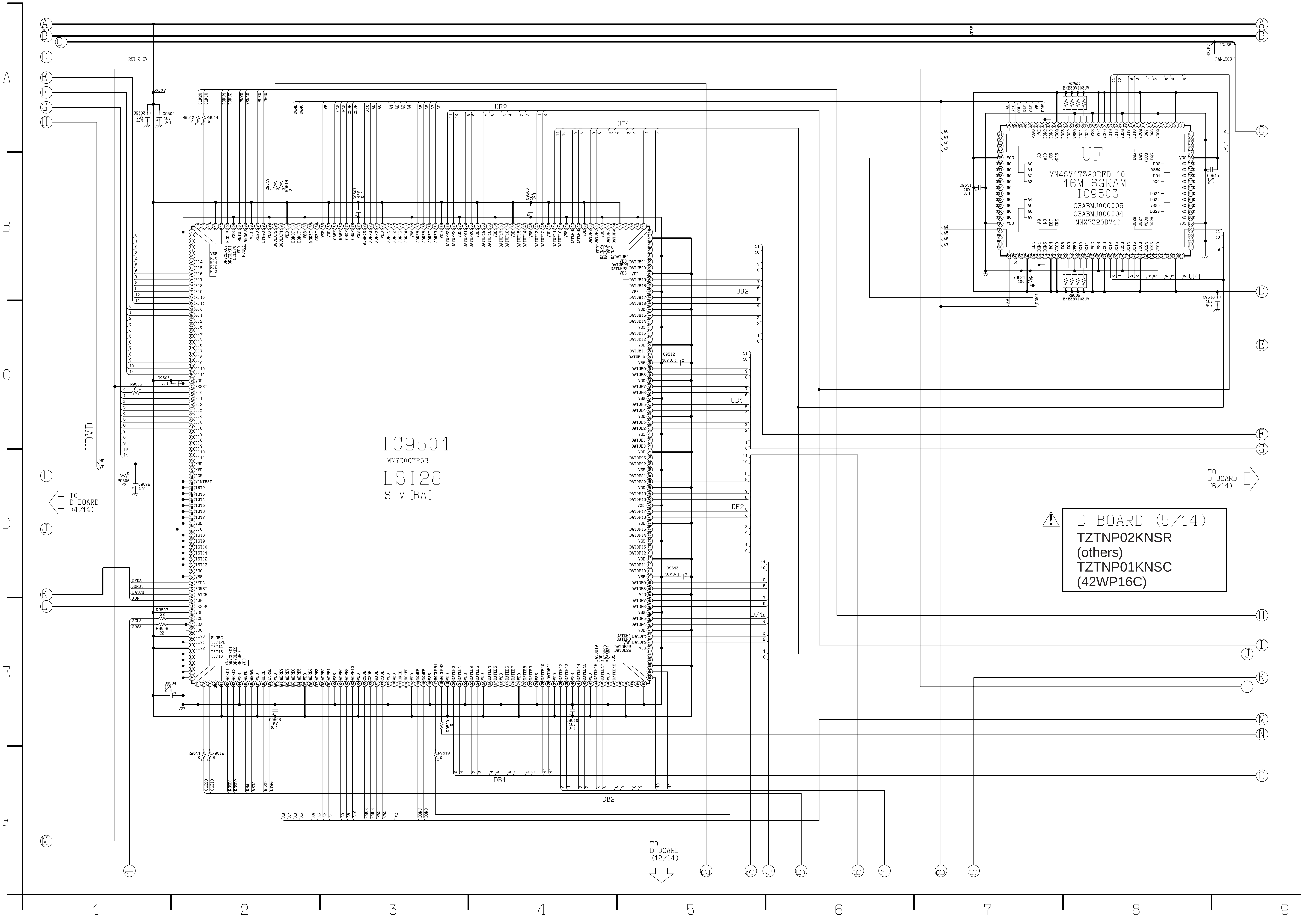
12.21. D-Board (3/14) Schematic Diagrams


D-BOARD
(3/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
IC9209
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
uPD4811650
IC9215
C0ABFA000012
PLLM
IC9217
AN78L05M-E1
IC9216
C0JBAZ000855
IC9211
C0ABFA000011
PLL2
IC9213
AN78L05M-E1
IC9207
C0JBAZ001201
3.3V->5V
IC9212
C0ABFA000012
PLL1
IC9214
AN78L05M-E1
Q9202
2SK0620OOL
DIGITAL
RGB PROCESSOR
IC9302
MN82860
SLV [DC]
TO
D-BOARD
(2/14)
TO
D-BOARD
(4/14)
TO
D-BOARD
(10/14)
13.5V
3.3V
5V
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

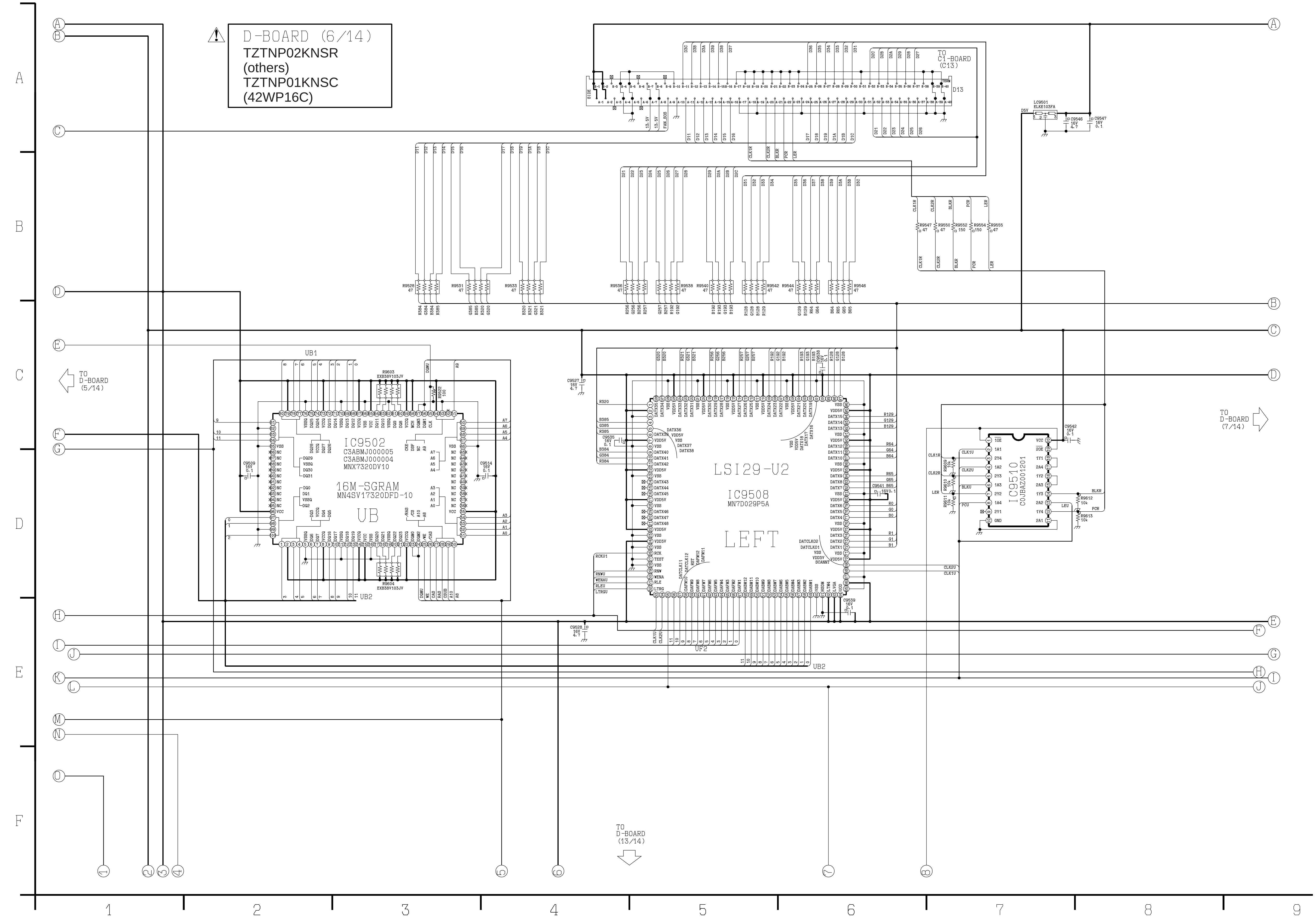
12.22. D-Board (4/14) Schematic Diagrams


D-BOARD
(4/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
IC9401
MBM29LV800B-10PFTN
8M-FLASH
TVRJ606
C3FBKD000104
IC9400
MN84502
LSI27
SLV [44]
IC9402
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
uPD4811650
IC9403
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
uPD4811650
TVRJ563
IC9516
C0ZBZ0000268
X9500
H1A8405B0001
84MHz
TO
D-BOARD
(3/14)
TO
D-BOARD
(5/14)
TO
D-BOARD
(11/14)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

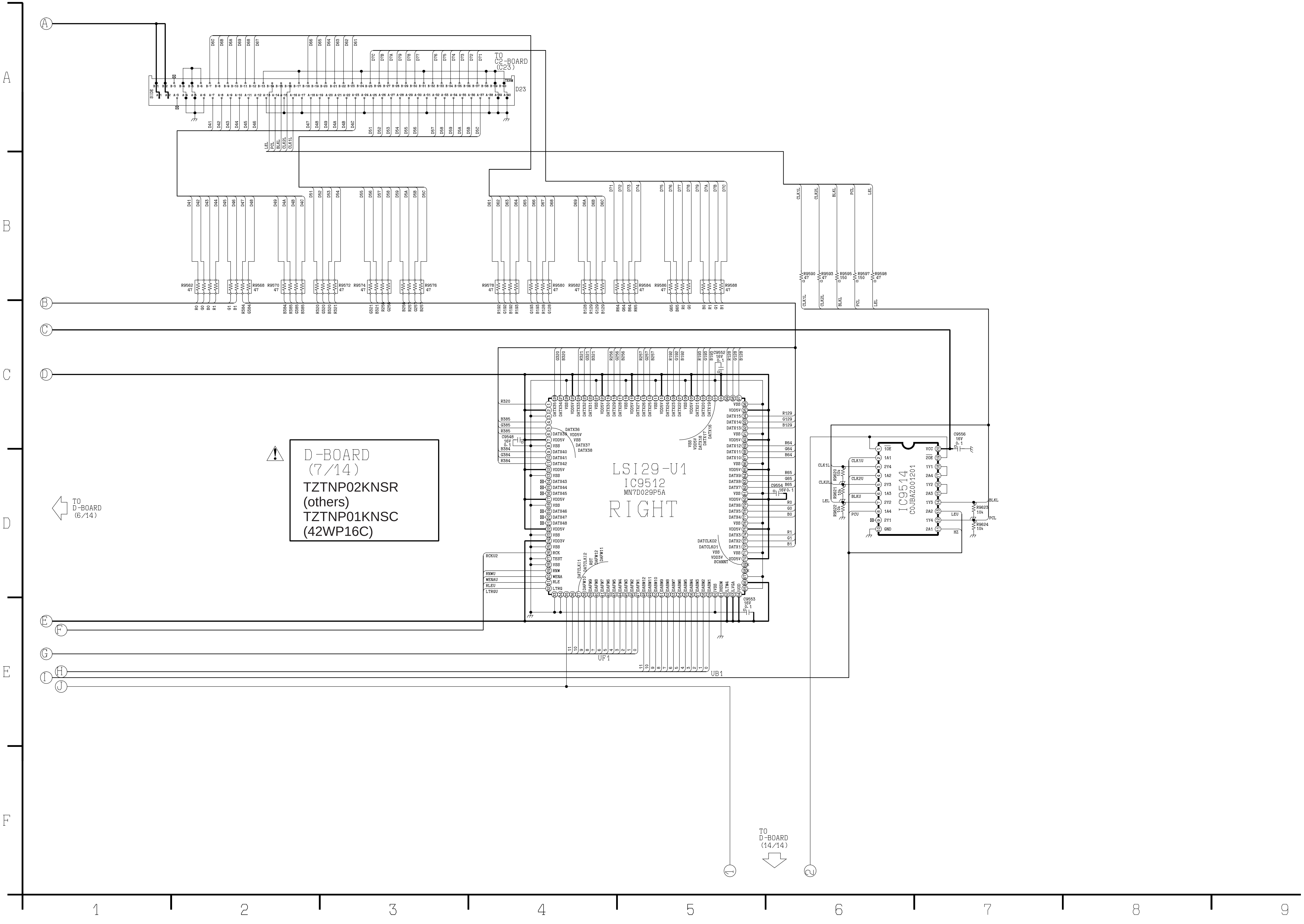
12.23. D-Board (5/14) Schematic Diagrams


IC9501
MN7E007P5B
LSI28
SLV [BA]
UF
MN4SV17320DFD-10
16M-SGRAM
IC9503
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
HDVD
UF2
UF1
UB2
UB1
DF2
DF1
DB1
DB2
RST 3.3V
3.3V
13.5V
FAN_B03
TO D-BOARD (4/14)
TO D-BOARD (6/14)
TO D-BOARD (12/14)
R9601 EXB38V103JV
R9602 EXB38V103JV
D-BOARD (5/14)
TZTNP02KNSR (others)
TZTNP01KNSC (42WP16C)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

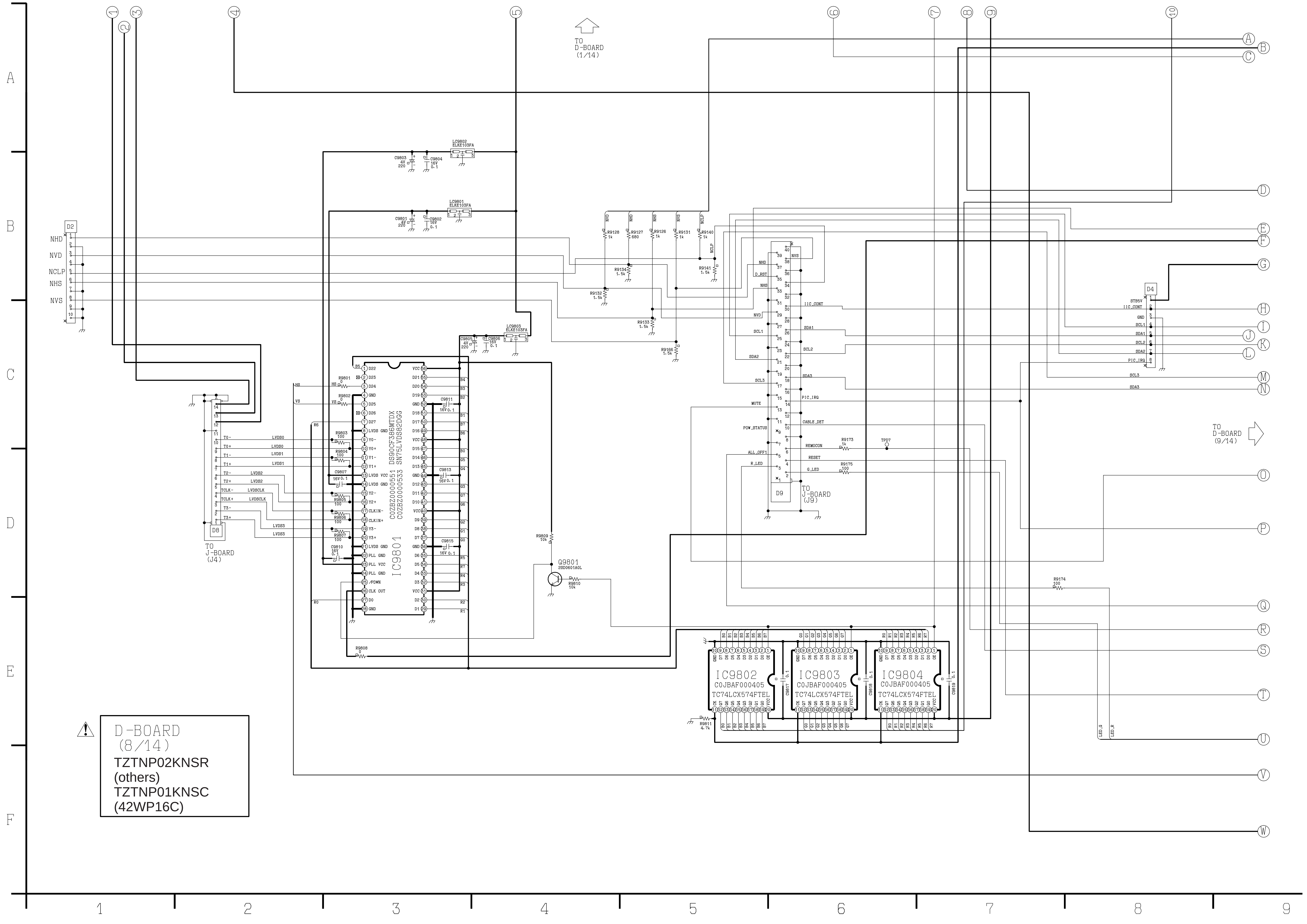
12.24. D-Board (6/14) Schematic Diagrams


D-BOARD (6/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
TO
C1-BOARD
(C13)
D13
LC9501
ELKE103FA
TO
D-BOARD
(5/14)
UB1
UB2
IC9502
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
UB
R9603
EXB38V103JV
R9604
EXB38V103JV
LSI29-U2
IC9508
MN7D029P5A
LEFT
UF2
UB2
IC9510
C0JBAZ001201
TO
D-BOARD
(7/14)
TO
D-BOARD
(13/14)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

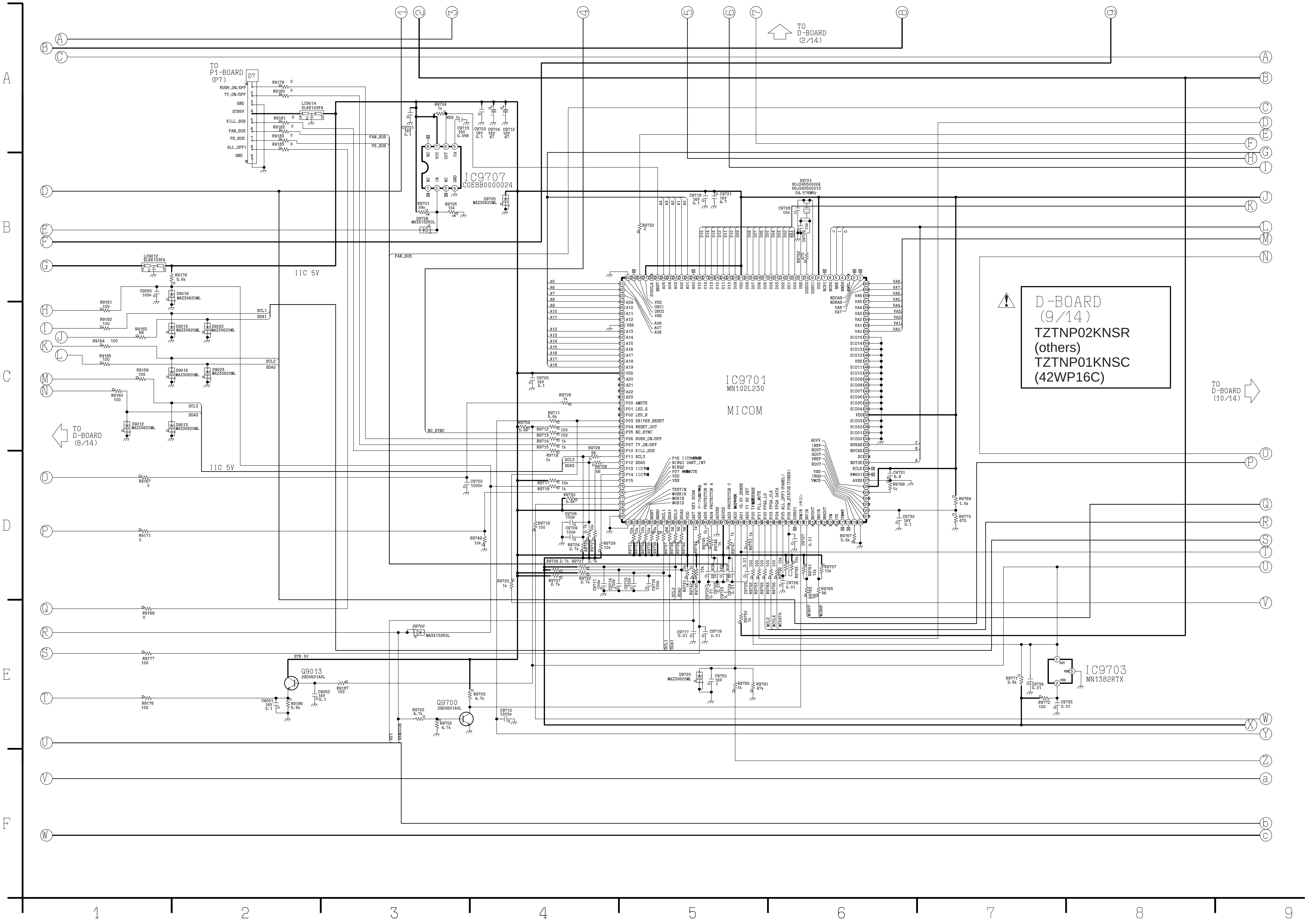
12.25. D-Board (7/14) Schematic Diagrams


D-BOARD
(7/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
LSI29-U1
IC9512
MN7D029P5A
RIGHT
IC9514
C0JBAZ001201
TO
C2-BOARD
(C23)
D23
TO
D-BOARD
(6/14)
TO
D-BOARD
(14/14)
UF1
UB1
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

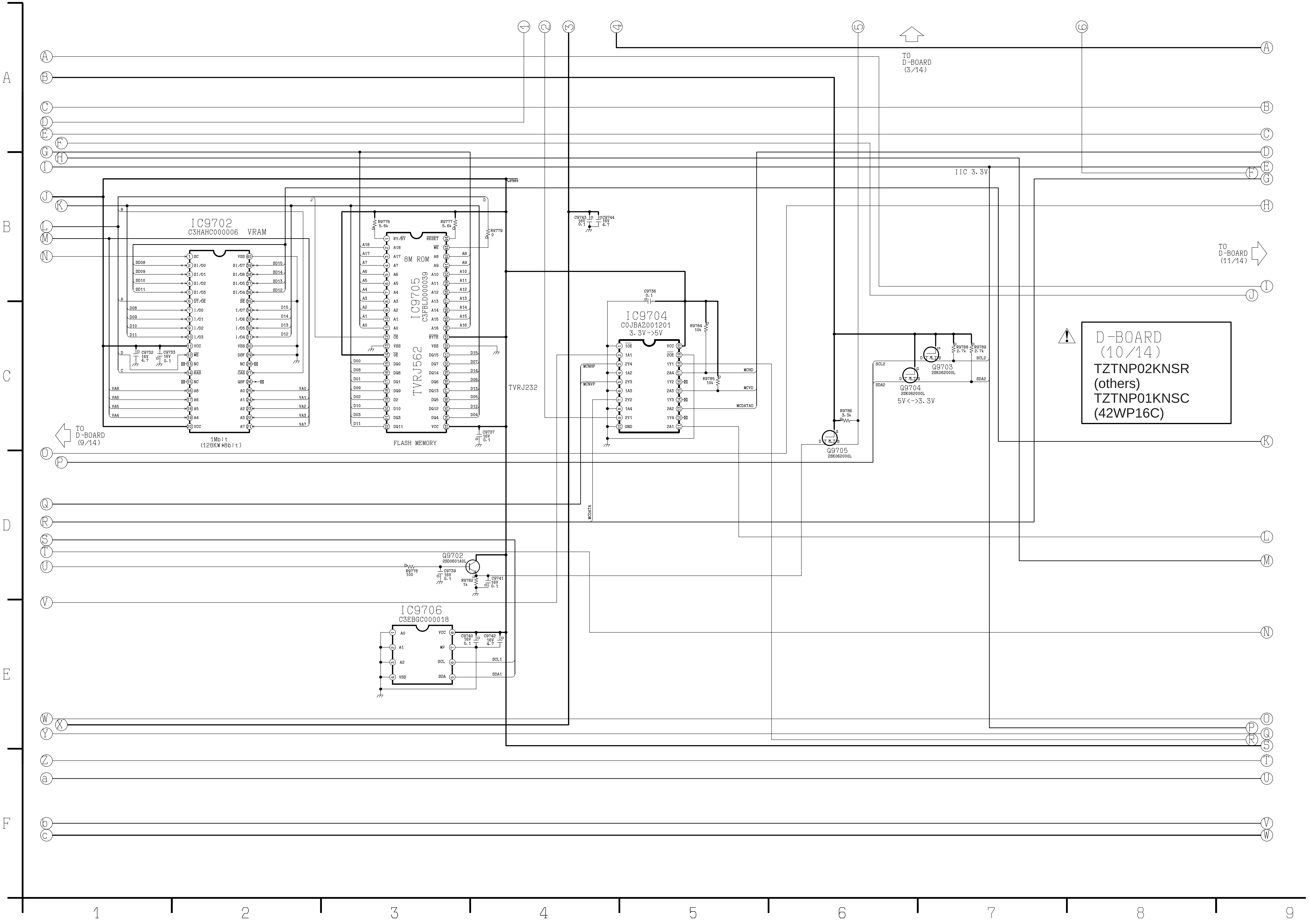
12.26. D-Board (8/14) Schematic Diagrams


TO D-BOARD (1/14)
TO J-BOARD (J4)
TO J-BOARD (J9)
TO D-BOARD (9/14)
D2
D4
D8
D9
NHD
NVD
NCLP
NHS
NVS
LC9801 ELKE103FA
LC9802 ELKE103FA
LC9803 ELKE103FA
IC9801
DS90CF386MTDX
SN75LVDS82DGG
C0ZBZ0000551
C0ZBZ0000533
IC9802
IC9803
IC9804
C0JBAF000405
TC74LCX574FTEL
Q9801
2SD0601A0L
TP07
IIC_CONT
SDA1
SCL1
SDA2
SCL2
SDA3
SCL3
PIC_IRQ
CABLE_DET
REMOCON
RESET
G_LED
R_LED
MUTE
POW_STATUS
ALL_OFF1
D_RST
STBSV
LVDS0
LVDS1
LVDS2
LVDS3
LVDSCLK
LED_G
LED_R
D-BOARD (8/14)
TZTNP02KNSR (others)
TZTNP01KNSC (42WP16C)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

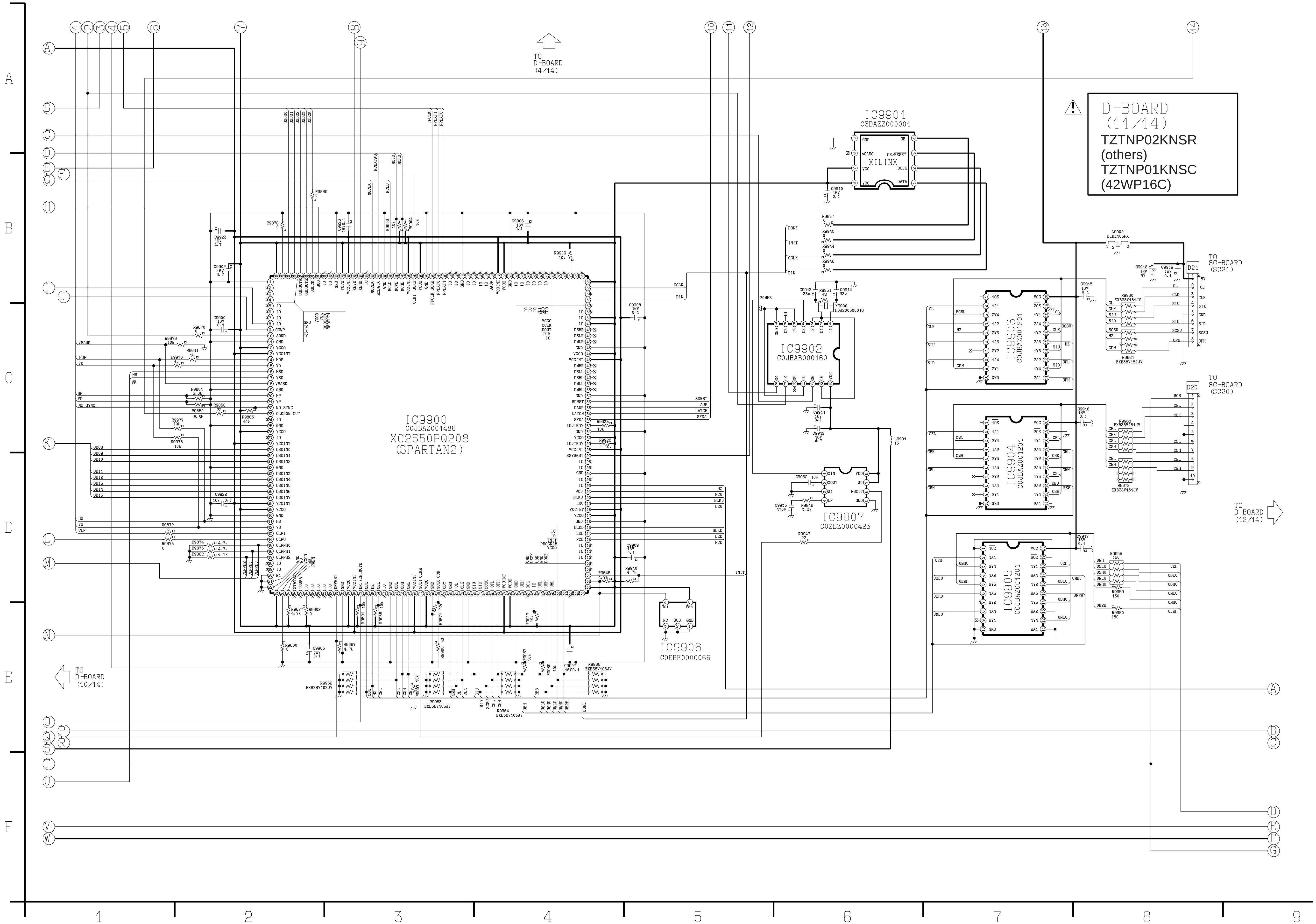
12.27. D-Board (9/14) Schematic Diagrams


D-BOARD
(9/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
TO D-BOARD (2/14)
TO D-BOARD (10/14)
TO D-BOARD (8/14)
TO P1-BOARD (P7)
D7
IC9701
MN102L230
MICOM
IC9707
C0EBB0000024
IC9703
MN1382RTX
Q9013
2SD0601A0L
Q9700
2SD0601A0L
X9701
IIC 5V
STB 5V
LC9014
ELKE103FA
LC9012
ELKE103FA
RUSH_ON/OFF
TV_ON/OFF
GND
STB5V
KILL_SOS
FAN_SOS
PS_SOS
ALL_OFF1
FAN_SOS
PS_SOS
NO_SYNC
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
KEY
REMOCON
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

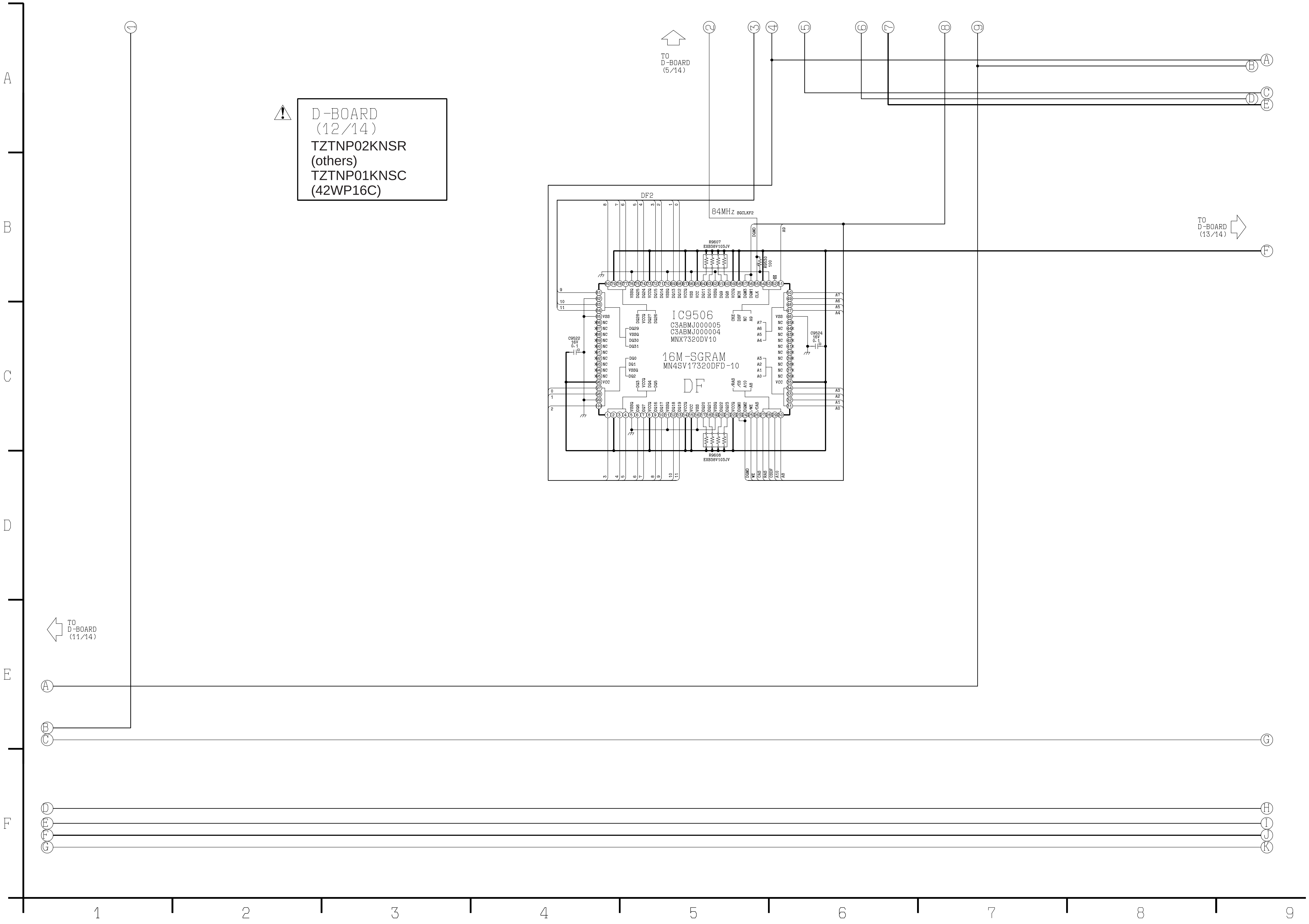
12.28. D-Board (10/14) Schematic Diagrams


IC9702
C3HAHC000006 VRAM
1Mbit
(128KW*8bit)
IC9705
C3FBLD000039
8M ROM
TVRJ562
FLASH MEMORY
TVRJ232
IC9704
C0JBAZ001201
3.3V->5V
IC9706
C3EBGC000018
Q9702
2SD0601A0L
Q9703
2SK062000L
Q9704
2SK062000L
Q9705
2SK062000L
5V<->3.3V
IIC 3.3V
TO
D-BOARD
(3/14)
TO
D-BOARD
(11/14)
TO
D-BOARD
(9/14)
D-BOARD
(10/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
MCHD
MCVD
MCDATAO
MCDATA
MCNHP
MCNVP
SCL1
SDA1
SCL2
SDA2
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

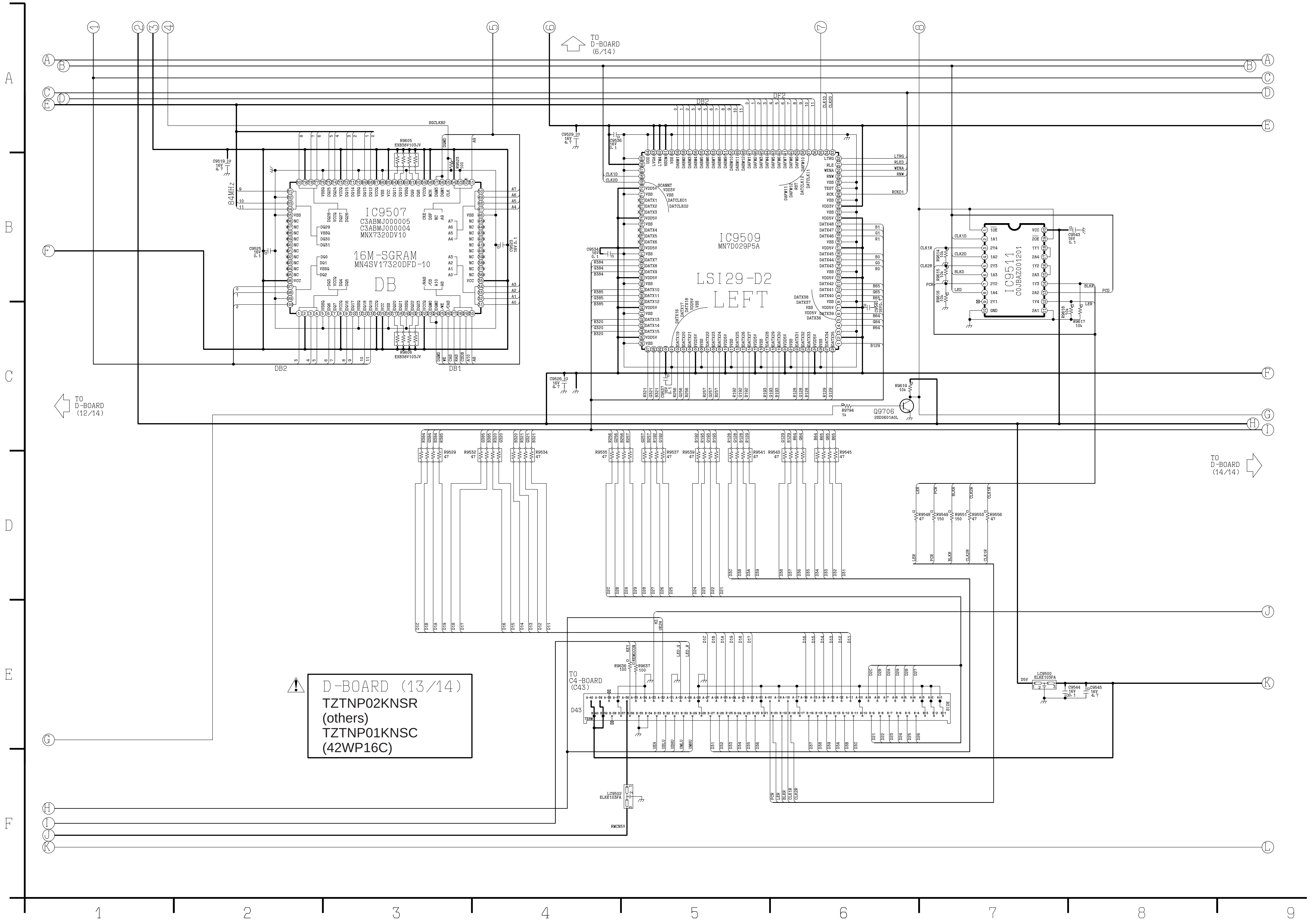
12.29. D-Board (11/14) Schematic Diagrams


TO D-BOARD (4/14)
IC9901
C3DAZZ000001
XILINX
D-BOARD (11/14)
TZTNP02KNSR (others)
TZTNP01KNSC (42WP16C)
IC9900
C0JBAZ001486
XC2S50PQ208
(SPARTAN2)
IC9902
C0JBAB000160
IC9903
C0JBAZ001201
IC9904
C0JBAZ001201
IC9905
C0JBAZ001201
IC9906
C0EBE0000066
IC9907
C0ZBZ0000423
TO SC-BOARD (SC21)
TO SC-BOARD (SC20)
TO D-BOARD (12/14)
TO D-BOARD (10/14)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

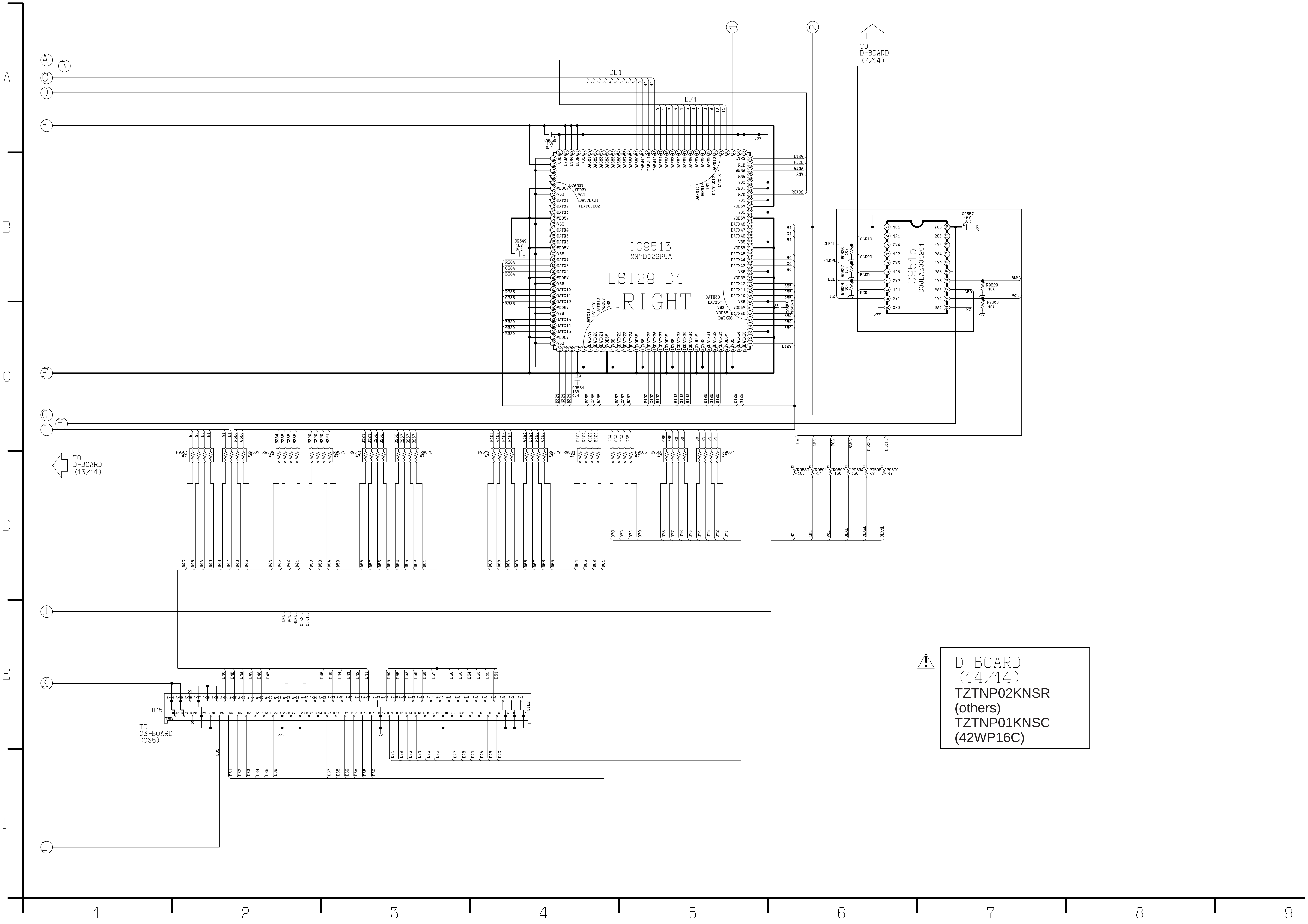
12.30. D-Board (12/14) Schematic Diagrams


D-BOARD
(12/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
TO D-BOARD (5/14)
TO D-BOARD (13/14)
TO D-BOARD (11/14)
DF2
84MHz SGCLKF2
R9607
EXB38V103JV
R9608
EXB38V103JV
R9530
100
C9522
16V
0.1
C9524
16V
0.1
IC9506
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
DF
VSS
VCC
VSSQ
VCCQ
NC
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
DQ16
DQ17
DQ18
DQ19
DQ20
DQ21
DQ22
DQ23
DQ24
DQ25
DQ26
DQ27
DQ28
DQ29
DQ30
DQ31
MCH
DQM0
DQM1
DQM2
DQM3
DQMD
CLK
CKE
DSF
CSDF
/RAS
/CS
/WE
/CAS
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
9

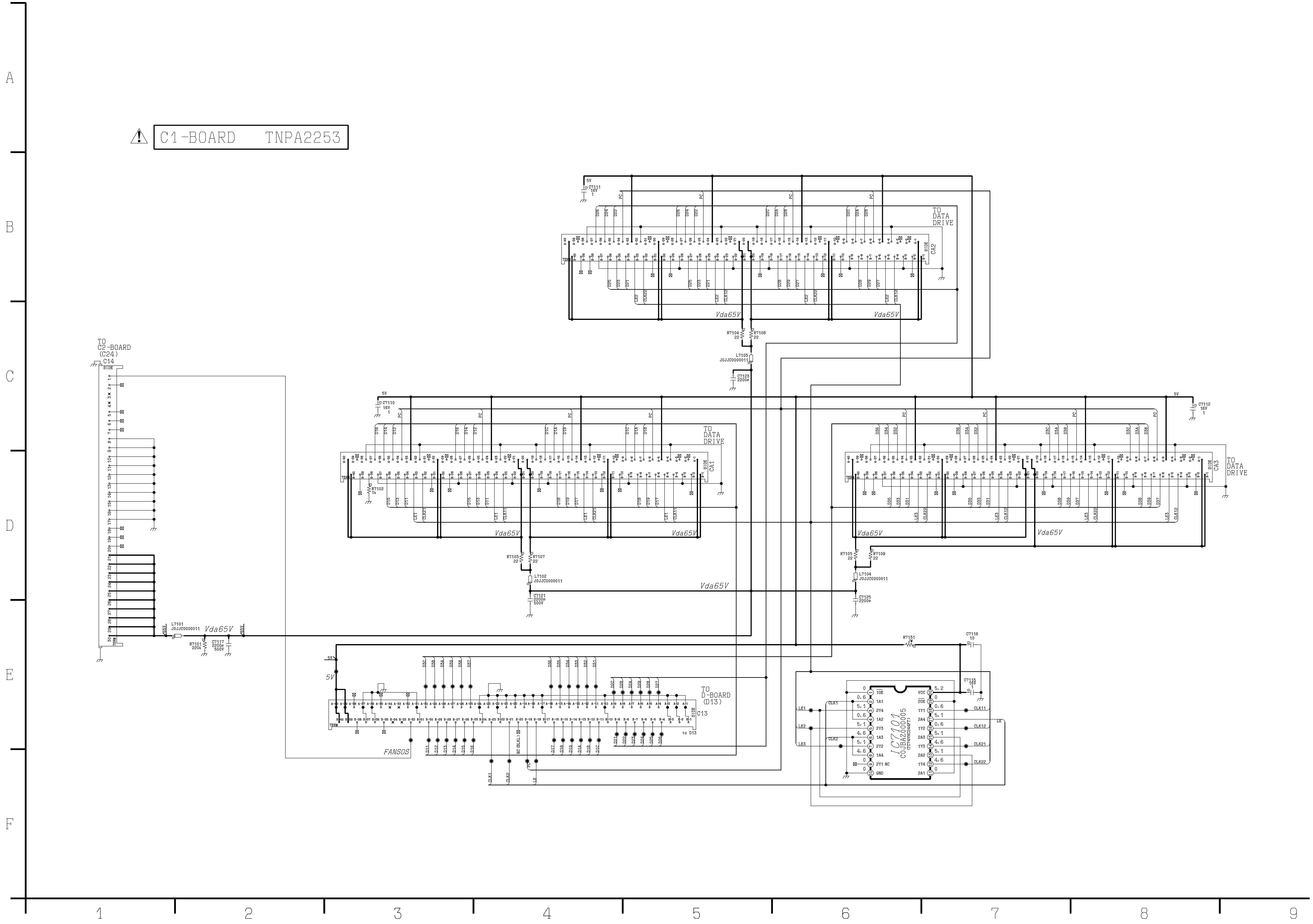
12.31. D-Board (13/14) Schematic Diagrams


TO D-BOARD (6/14)
TO D-BOARD (12/14)
TO D-BOARD (14/14)
TO C4-BOARD (C43)
IC9507
C3ABMJ000005
C3ABMJ000004
MNX7320DV10
16M-SGRAM
MN4SV17320DFD-10
DB
84MHz
IC9509
MN7D029P5A
LSI29-D2
LEFT
IC9511
C0JBAZ001201
Q9706
2SD0601A0L
DB1
DB2
DF2
D43
LC9500
ELKE103FA
LC9502
ELKE103FA
RMCN5V
D5V
D-BOARD (13/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

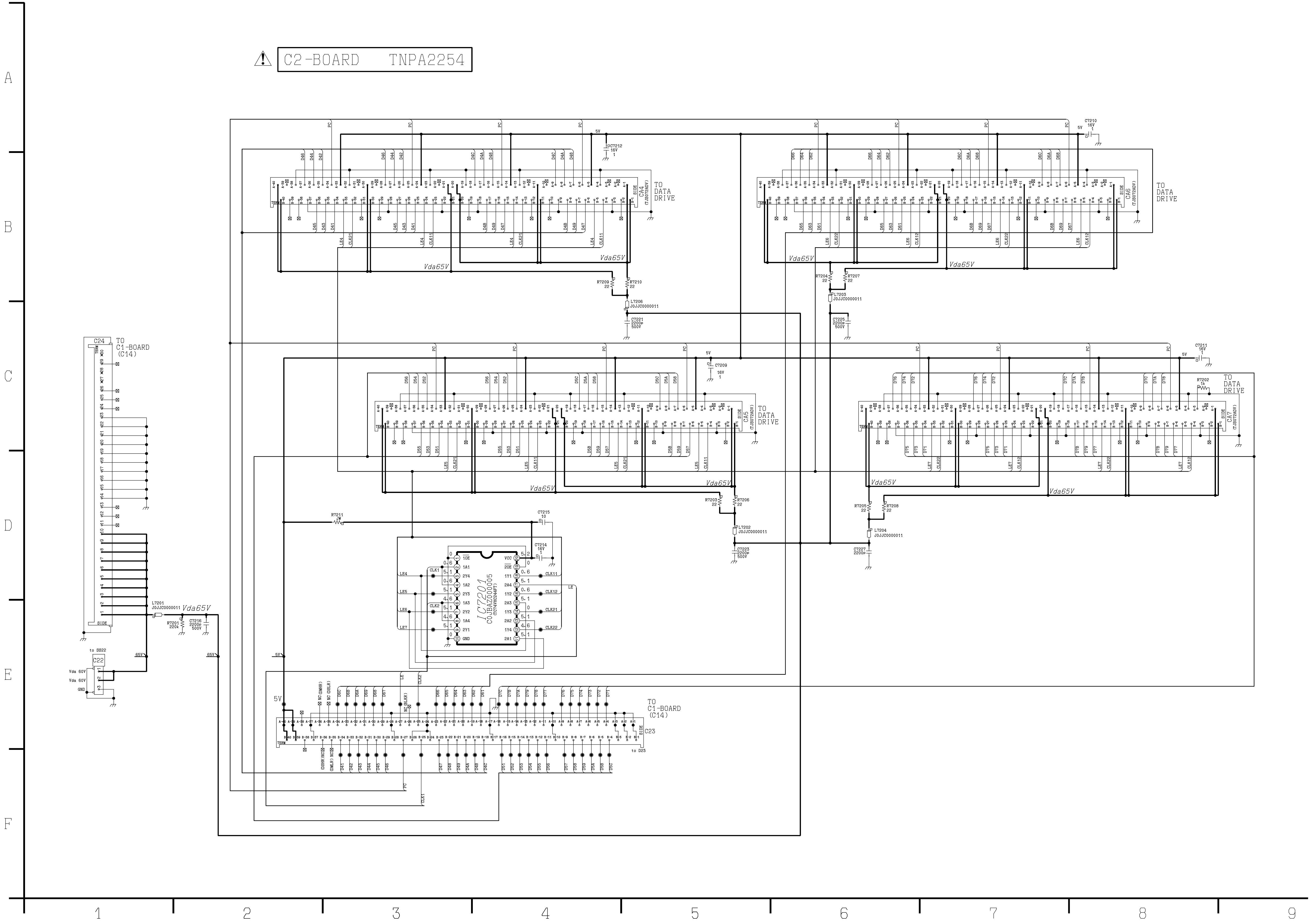
12.32. D-Board (14/14) Schematic Diagrams


A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
①
②
TO
D-BOARD
(7/14)
TO
D-BOARD
(13/14)
TO
C3-BOARD
(C35)
D35
DB1
DF1
IC9513
MN7D029P5A
LSI29-D1
RIGHT
IC9515
C0JBAZ001201
C9550
16V
0.1
C9549
16V
0.1
C9551
16V
0.1
C9557
16V
0.1
R9629
10k
R9630
10k
LTRG
RLED
WENA
RNW
RCKD2
BLKL
PCL
CLK1L
CLK2L
LEL
HZ
D-BOARD
(14/14)
TZTNP02KNSR
(others)
TZTNP01KNSC
(42WP16C)

12.33. C1-Board Schematic Diagrams

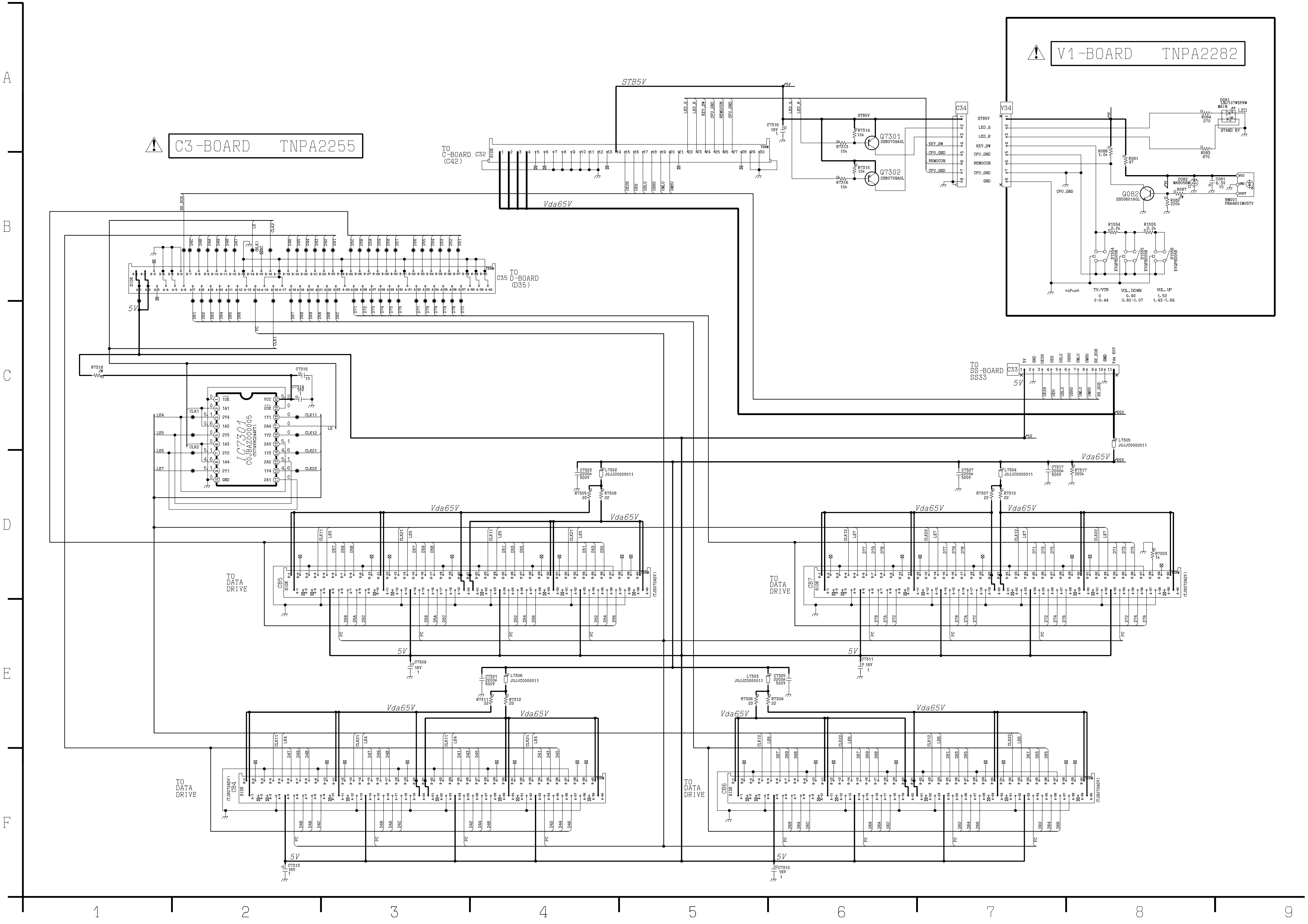

C1-BOARD TNPA2253
TO C2-BOARD (C24)
C14
TO DATA DRIVE
CA1
CA2
CA3
TO D-BOARD (D13)
C13
to D13
FANSOS
Vda65V
5V
L7101 J0JJC0000011
R7101 220k
C7117 2200p 500V
C7110 16V 1
C7111 16V 1
C7112 16V 1
R7102
R7103 22
R7107 22
R7104 22
R7108 22
R7105 22
R7109 22
L7102 J0JJC0000011
L7103 J0JJC0000011
L7104 J0JJC0000011
C7121 2200p 500V
C7123 2200p
C7125 2200p
R7131
C7116 10
C7115 16V
IC7101 C0JBAZ000005 (TC74VHC244FT)
CLK1
CLK2
CLK11
CLK12
CLK21
CLK22
LE1
LE2
LE3
LE
1OE
2OE
VCC
GND
PC
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

12.34. C2-Board Schematic Diagrams

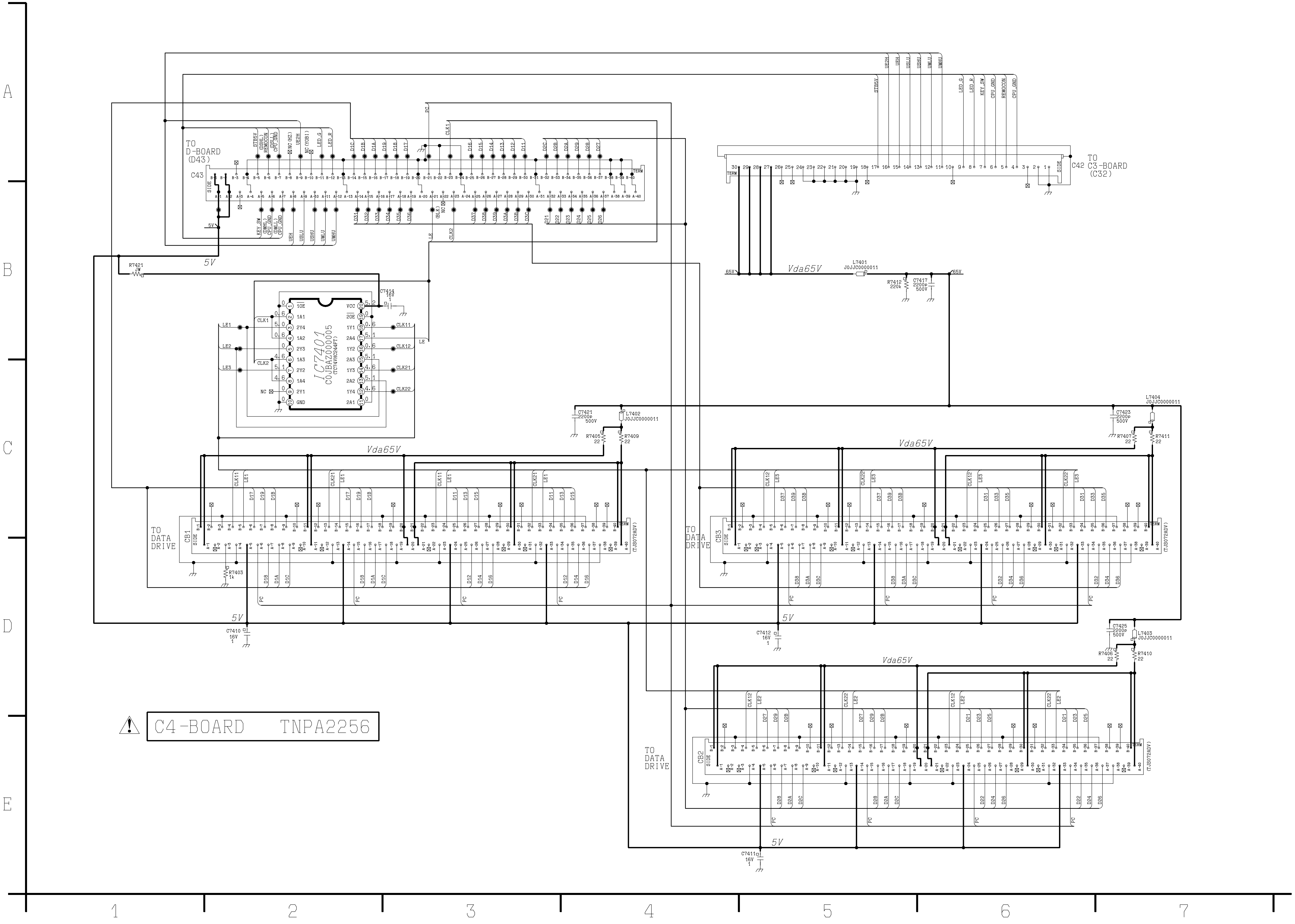


⚠ C2-BOARD TNPA2254
TO DATA DRIVE
CA4
CA6
CA5
CA7
TO C1-BOARD (C14)
C24
C22
C23
to C23
to D23
IC7201
C0JBAZ000005
Vda65V
5V
65V
PC
L7201
L7202
L7203
L7204
L7206
R7201
R7202
R7203
R7204
R7205
R7206
R7207
R7208
R7209
R7210
R7211
C7209
C7210
C7211
C7212
C7214
C7215
C7216
C7221
C7223
C7225
C7227
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

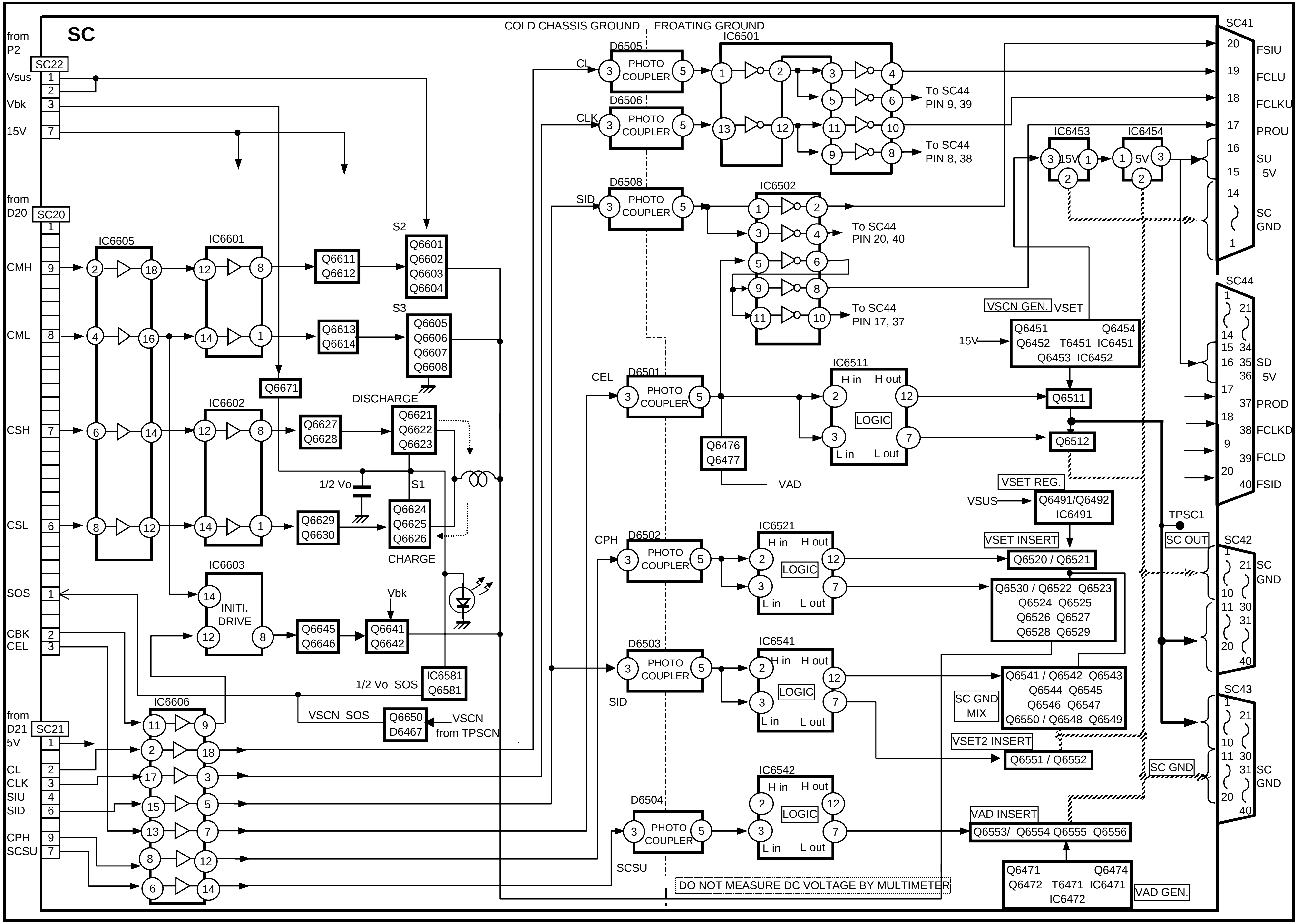
12.35. C3-Board and V1-Board Schematic Diagrams


C3-BOARD TNPA2255
V1-BOARD TNPA2282
TO C-BOARD (C42)
C32
STB5V
Vda65V
C34
V34
Q7301
2SB0709A0L
Q7302
2SB0709A0L
Q082
2SD0601A0L
D081
LN3107W5PRW
MAIN
LED
STAND BY
RM001
PNA4601M05TV
TO D-BOARD (D35)
C35
TO SS-BOARD SS33
C33
IC7301
C0JBAZ000005
TO DATA DRIVE
C35
C37
C34
C36
5V
TV/VTR
VOL.DOWN
VOL.UP
noPush
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

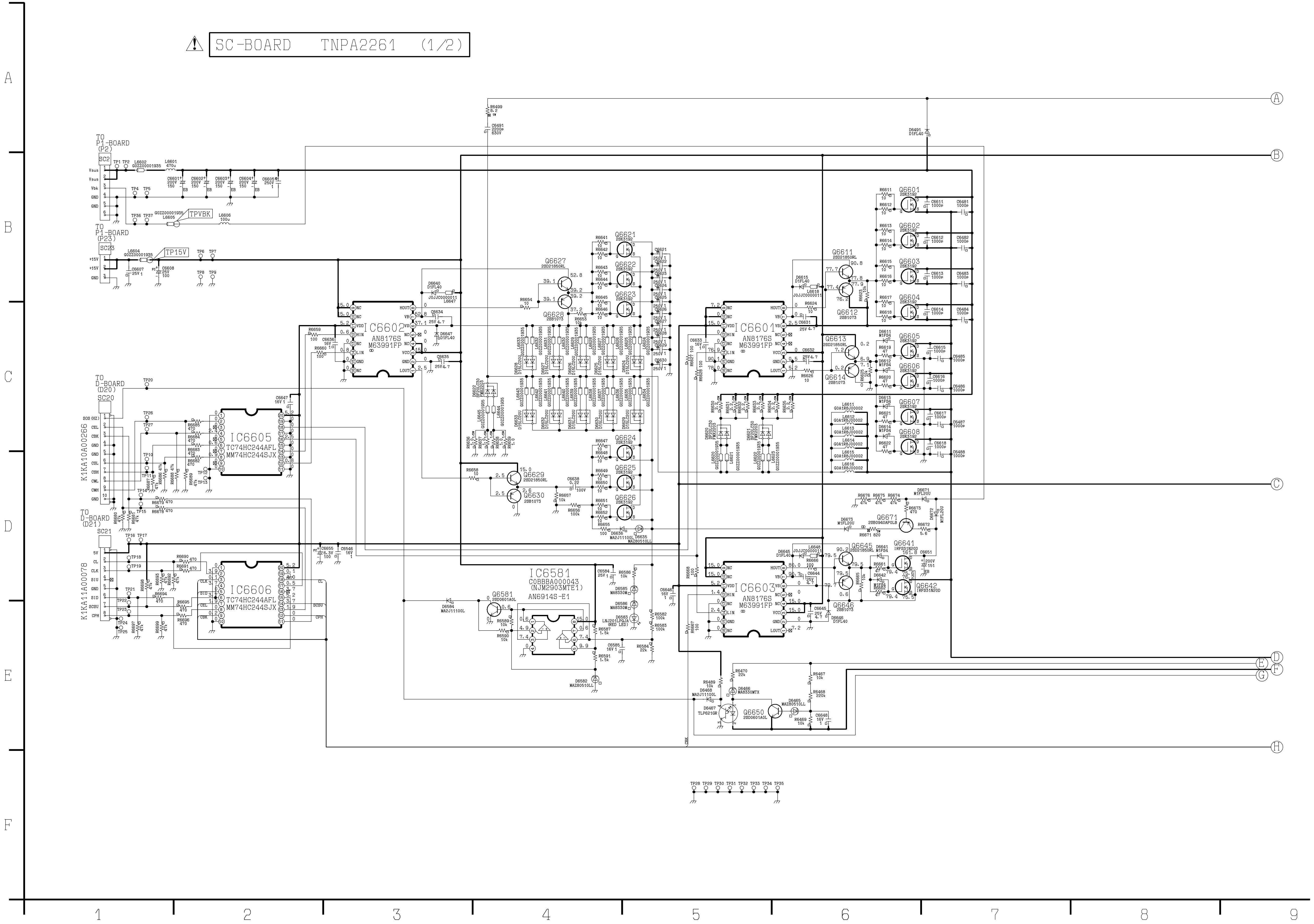
12.36. C4-Board Schematic Diagrams


A
B
C
D
E
1
2
3
4
5
6
7
TO D-BOARD (D43)
C43
C42
TO C3-BOARD (C32)
IC7401
C0JBAZ000005
(TC74VHC244FT)
Vda65V
5V
L7401 J0JJC0000011
R7412 220k
C7417 2200p 500V
R7421
C7414 16V 1
L7402 J0JJC0000011
C7421 2200p 500V
R7405 22
R7409 22
L7404 J0JJC0000011
C7423 2200p 500V
R7407 22
R7411 22
TO DATA DRIVE
CB1
CB3
CB2
R7403 1k
C7410 16V 1
C7412 16V 1
C7411 16V 1
C7425 2200p 500V
L7403 J0JJC0000011
R7406 22
R7410 22
(TJS072ADV)
C4-BOARD TNPA2256

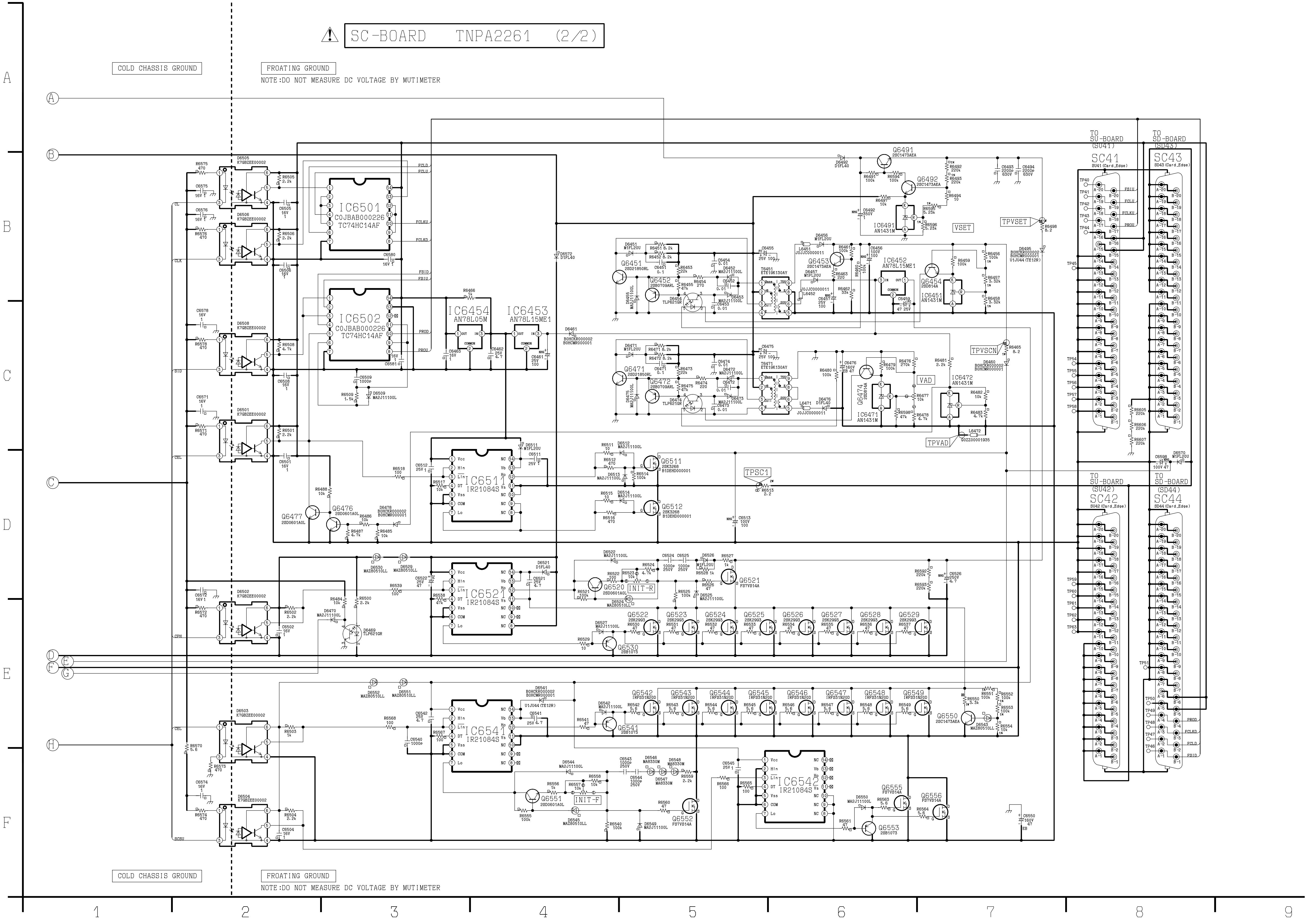
12.37. SC-Board Block Diagrams


SC
from P2
SC22
Vsus
Vbk
15V
1
2
3
7
from D20
SC20
CMH
CML
CSH
CSL
SOS
CBK
CEL
9
8
7
6
1
2
3
from D21
SC21
5V
CL
CLK
SIU
SID
CPH
SCSU
IC6605
IC6601
IC6602
IC6603
IC6606
INITI. DRIVE
Q6611 Q6612
Q6613 Q6614
Q6627 Q6628
Q6629 Q6630
Q6645 Q6646
Q6641 Q6642
Q6671
S2
Q6601 Q6602 Q6603 Q6604
S3
Q6605 Q6606 Q6607 Q6608
DISCHARGE
Q6621 Q6622 Q6623
1/2 Vo
S1
Q6624 Q6625 Q6626
CHARGE
Vbk
IC6581 Q6581
1/2 Vo SOS
VSCN SOS
Q6650 D6467
VSCN from TPSCN
COLD CHASSIS GROUND
FROATING GROUND
D6505
D6506
D6508
D6501
D6502
D6503
D6504
PHOTO COUPLER
CL
CLK
SID
CEL
CPH
SID
SCSU
IC6501
To SC44 PIN 9, 39
To SC44 PIN 8, 38
IC6502
To SC44 PIN 20, 40
To SC44 PIN 17, 37
Q6476 Q6477
VAD
IC6511
IC6521
IC6541
IC6542
H in
H out
L in
L out
LOGIC
IC6453
IC6454
15V
5V
VSCN GEN.
VSET
15V
Q6451 Q6452 Q6453 T6451 Q6454 IC6451 IC6452
Q6511
Q6512
VSET REG.
VSUS
Q6491/Q6492 IC6491
VSET INSERT
Q6520 / Q6521
Q6530 / Q6522 Q6523 Q6524 Q6525 Q6526 Q6527 Q6528 Q6529
SC GND MIX
Q6541 / Q6542 Q6543 Q6544 Q6545 Q6546 Q6547 Q6550 / Q6548 Q6549
VSET2 INSERT
Q6551 / Q6552
VAD INSERT
Q6553/ Q6554 Q6555 Q6556
Q6471 Q6472 T6471 Q6474 IC6471 IC6472
VAD GEN.
DO NOT MEASURE DC VOLTAGE BY MULTIMETER
TPSC1
SC OUT
SC GND
SC41
FSIU
FCLU
FCLKU
PROU
SU 5V
SC GND
SC44
SD 5V
PROD
FCLKD
FCLD
FSID
SC42
SC GND
SC43
SC GND

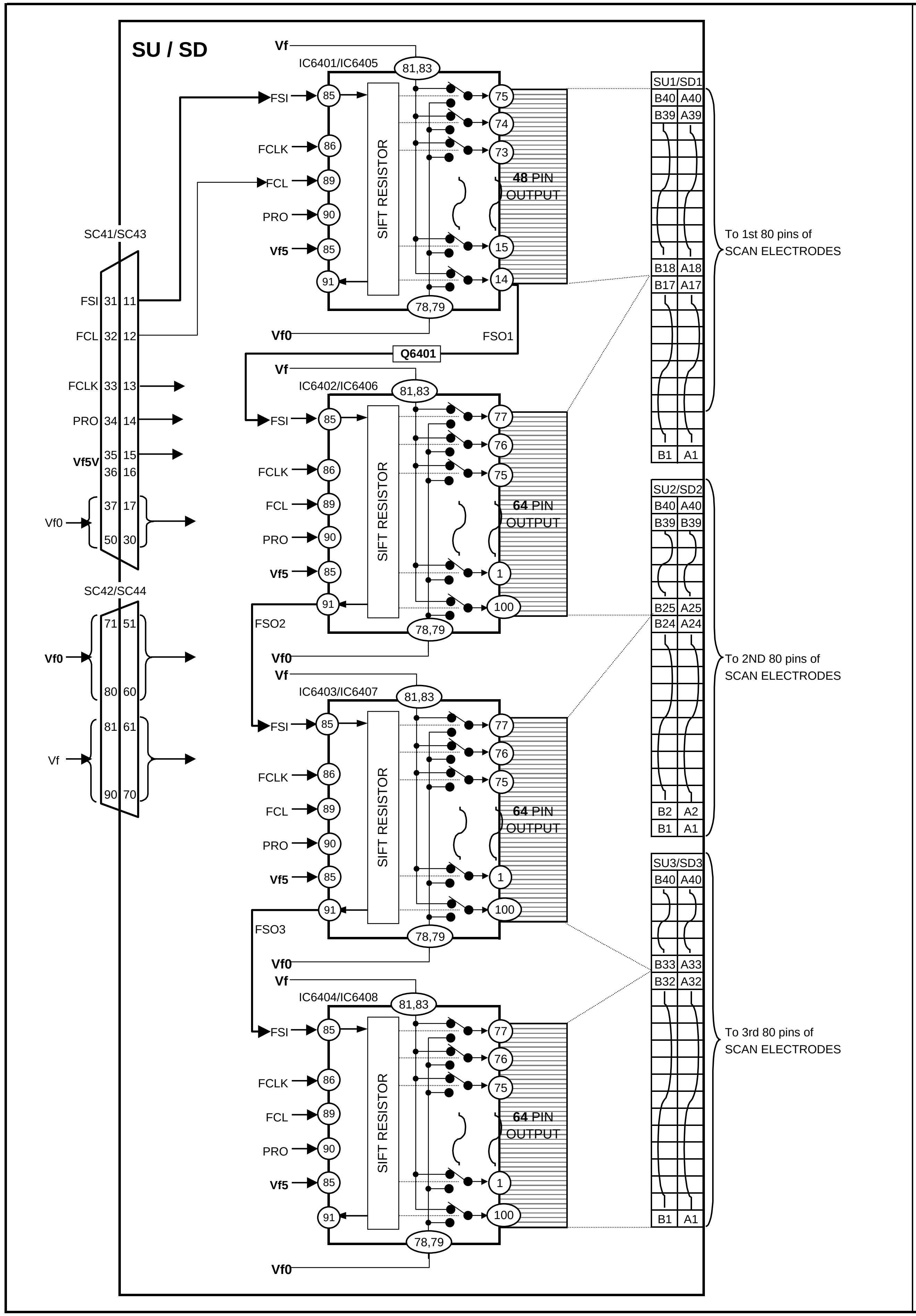
12.38. SC-Board (1/2) Schematic Diagrams

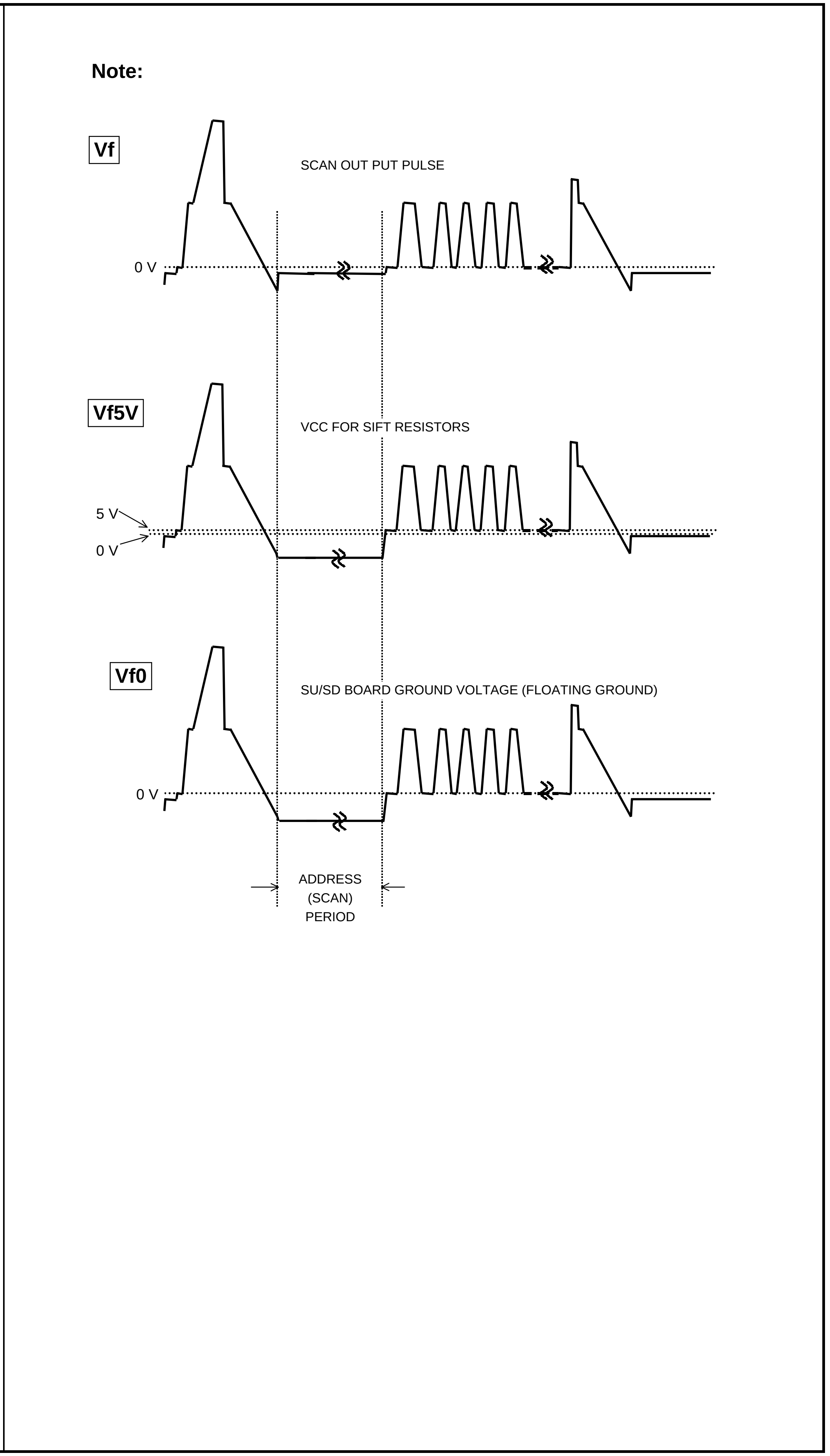

SC-BOARD TNPA2261 (1/2)
TO P1-BOARD (P2)
SC2
TO P1-BOARD (P23)
SC23
TPVBK
TP15V
TO D-BOARD (D20)
SC20
TO D-BOARD (D21)
SC21
K1KA10A00266
K1KA11A00078
IC6605
TC74HC244AFL
MM74HC244SJX
IC6606
TC74HC244AFL
MM74HC244SJX
IC6602
AN8176S
M63991FP
IC6601
AN8176S
M63991FP
IC6603
AN8176S
M63991FP
IC6581
C0BBBA000043
(NJM2903MTE1)
AN6914S-E1
Q6601
Q6602
Q6603
Q6604
Q6605
Q6606
Q6607
Q6608
Q6611
Q6612
Q6613
Q6614
Q6621
Q6622
Q6623
Q6624
Q6625
Q6626
Q6627
Q6628
Q6629
Q6630
Q6641
Q6642
Q6645
Q6646
Q6650
Q6671
Q6581
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
9

12.39. SC-Board (2/2) Schematic Diagrams

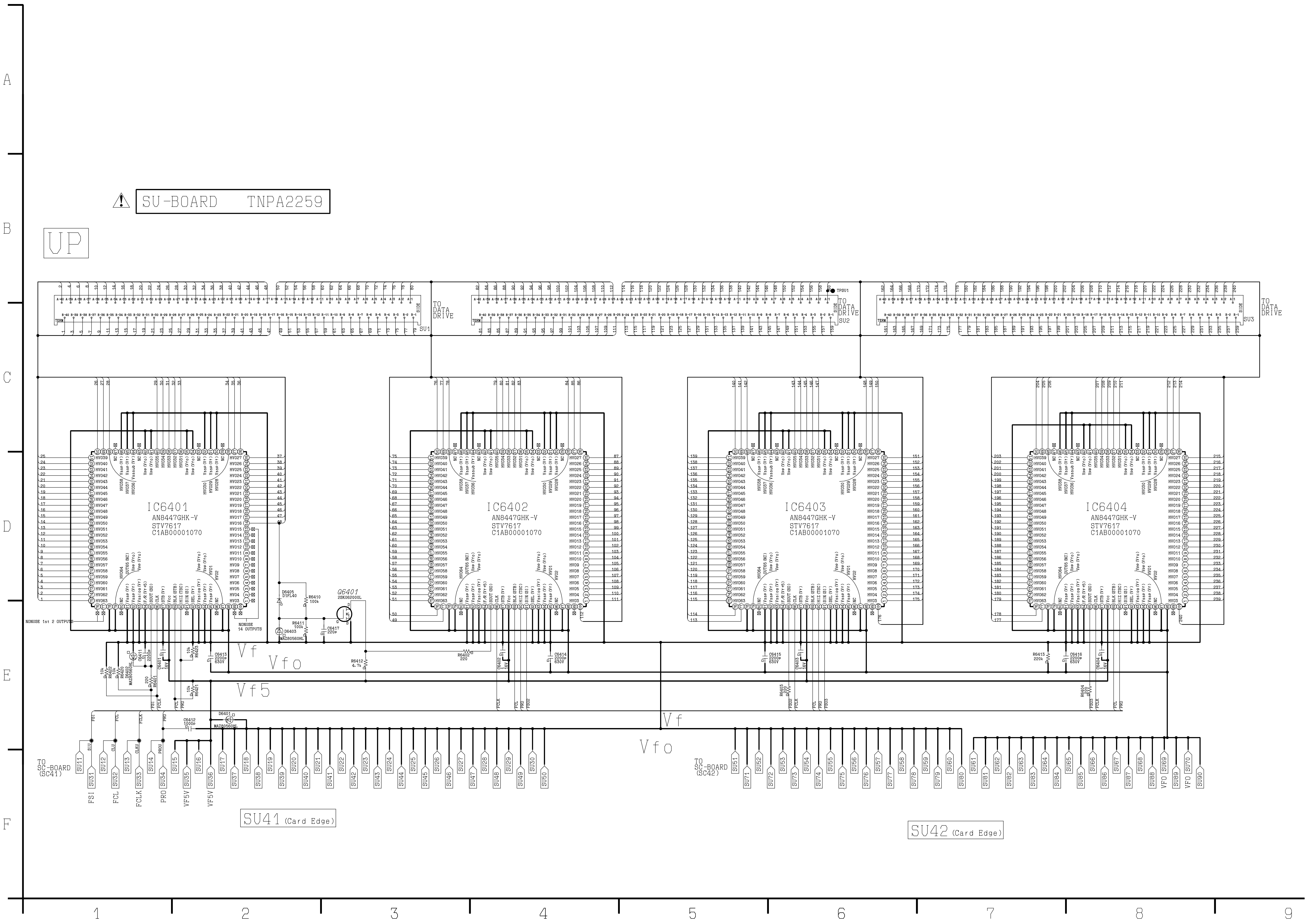

SC-BOARD TNPA2261 (2/2)
COLD CHASSIS GROUND
FROATING GROUND
NOTE:DO NOT MEASURE DC VOLTAGE BY MUTIMETER
IC6501
C0JBAB000226
TC74HC14AF
IC6502
C0JBAB000226
TC74HC14AF
IC6454
AN78L05M
IC6453
AN78L15ME1
IC6511
IR21084S
IC6521
IR21084S
IC6541
IR21084S
IC6542
IR21084S
IC6451
AN1431M
IC6452
AN78L15ME1
IC6471
AN1431M
IC6472
AN1431M
IC6491
AN1431M
Q6451
Q6452
Q6453
Q6454
Q6471
Q6472
Q6474
Q6476
Q6477
Q6491
Q6492
Q6511
Q6512
Q6520
Q6521
Q6522
Q6523
Q6524
Q6525
Q6526
Q6527
Q6528
Q6529
Q6530
Q6541
Q6542
Q6543
Q6544
Q6545
Q6546
Q6547
Q6548
Q6549
Q6550
Q6551
Q6552
Q6553
Q6555
Q6556
VSET
TPVSET
VAD
TPVAD
TPVSCN
TPSC1
INIT-R
INIT-F
TO SU-BOARD (SU41)
SC41
TO SD-BOARD (SD43)
SC43
TO SU-BOARD (SU42)
SC42
TO SD-BOARD (SD44)
SC44
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

12.40. SU/SD Block Diagram

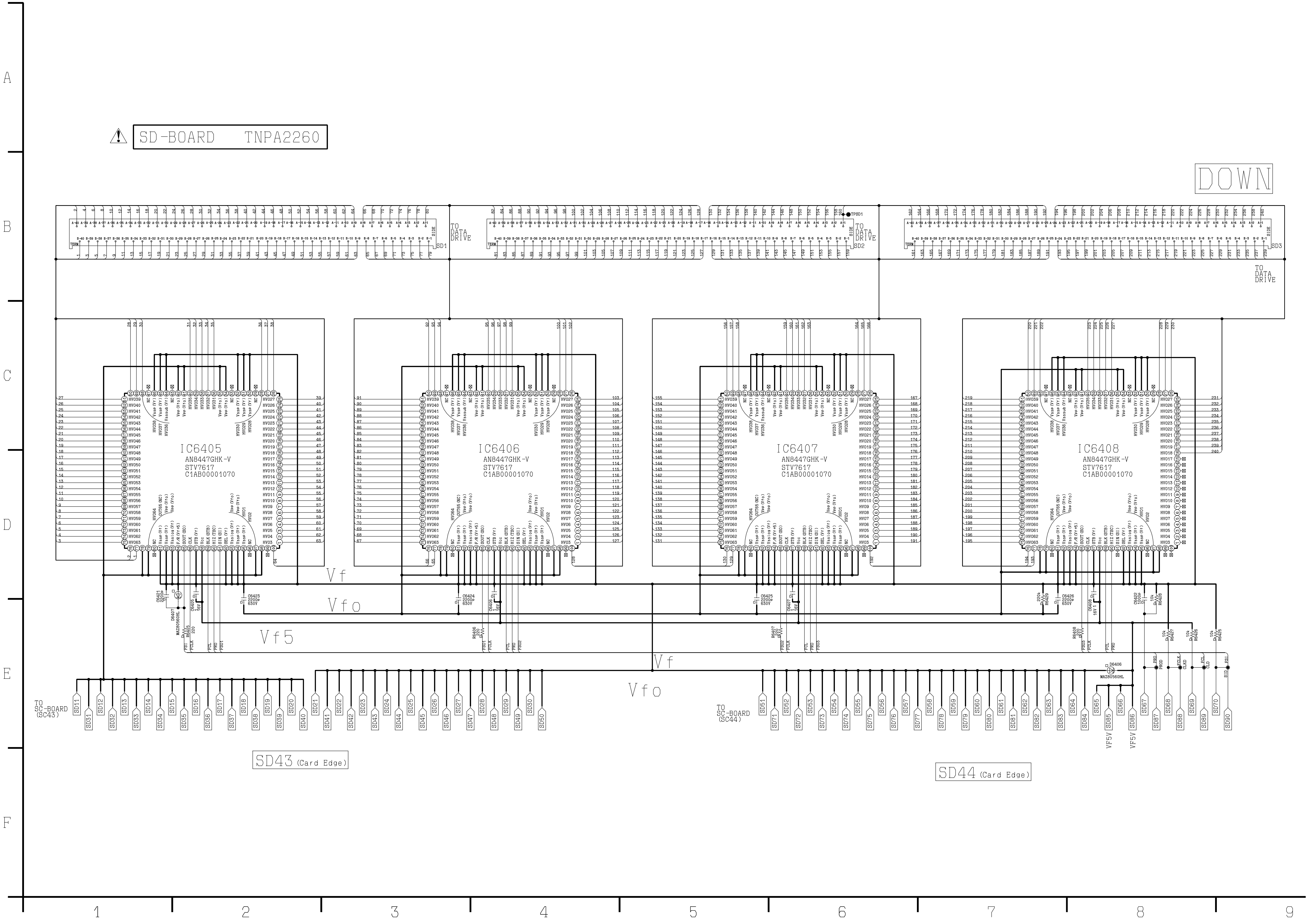

SU / SD
SC41/SC43
FSI 31 11
FCL 32 12
FCLK 33 13
PRO 34 14
Vf5V 35 15 36 16
Vf0 37 17 50 30
SC42/SC44
Vf0 71 51 80 60
Vf 81 61 90 70
Vf
IC6401/IC6405
81,83
FSI
FCLK
FCL
PRO
Vf5
SIFT RESISTOR
48 PIN OUTPUT
78,79
Vf0
FSO1
Q6401
IC6402/IC6406
64 PIN OUTPUT
FSO2
IC6403/IC6407
FSO3
IC6404/IC6408
SU1/SD1
B40 A40
B39 A39
B18 A18
B17 A17
B1 A1
To 1st 80 pins of SCAN ELECTRODES
SU2/SD2
B40 A40
B39 B39
B25 A25
B24 A24
B2 A2
B1 A1
To 2ND 80 pins of SCAN ELECTRODES
SU3/SD3
B40 A40
B33 A33
B32 A32
B1 A1
To 3rd 80 pins of SCAN ELECTRODES


Note:
Vf
SCAN OUT PUT PULSE
0 V
Vf5V
VCC FOR SIFT RESISTORS
5 V
0 V
Vf0
SU/SD BOARD GROUND VOLTAGE (FLOATING GROUND)
0 V
ADDRESS (SCAN) PERIOD

12.41. SU-Board Schematic Diagrams

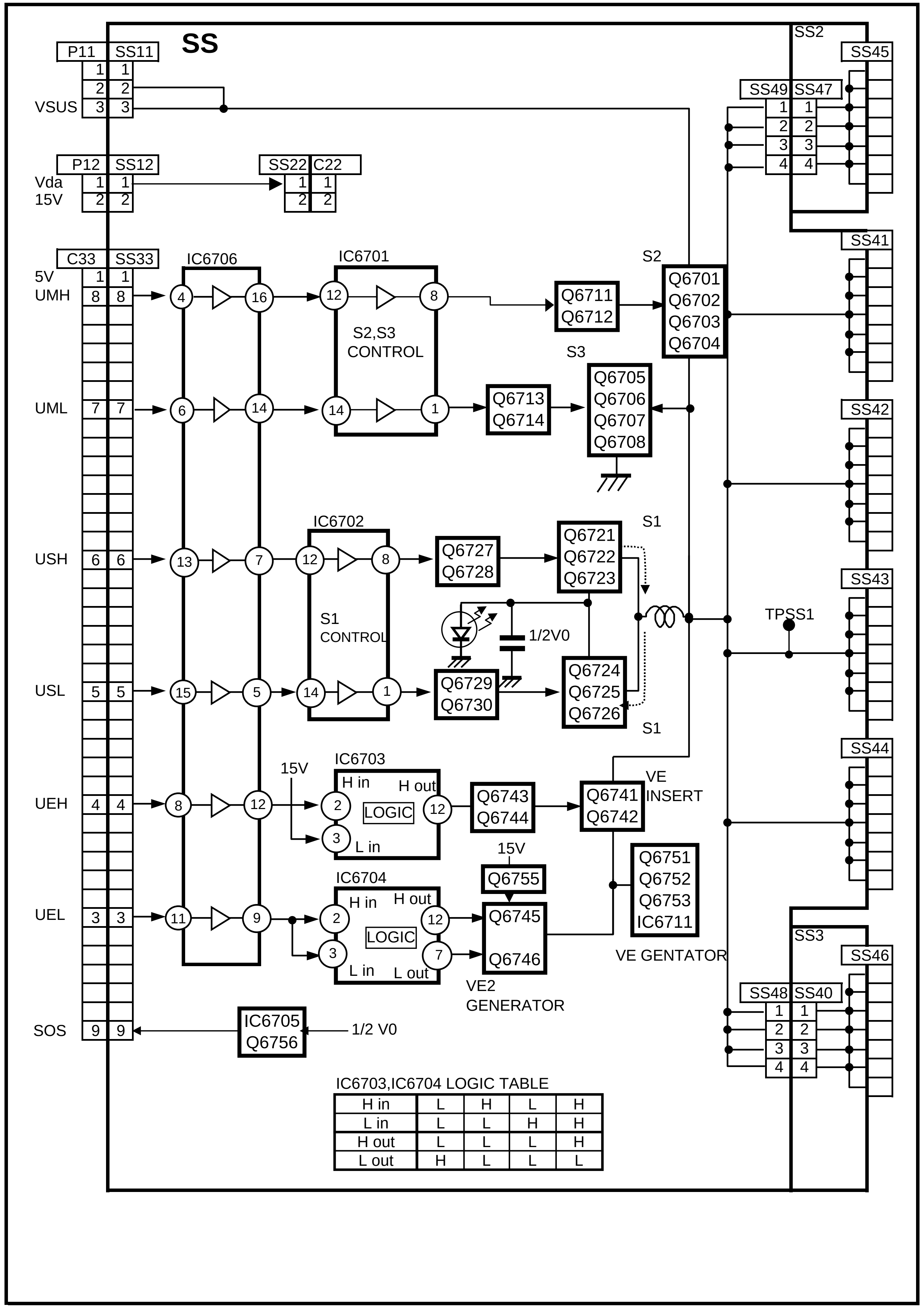

SU-BOARD TNPA2259
UP
TO DATA DRIVE
SU1
SU2
SU3
TPSU1
IC6401
AN8447GHK-V
STV7617
C1AB00001070
IC6402
AN8447GHK-V
STV7617
C1AB00001070
IC6403
AN8447GHK-V
STV7617
C1AB00001070
IC6404
AN8447GHK-V
STV7617
C1AB00001070
NONUSE 1st 2 OUTPUTS
NONUSE 14 OUTPUTS
Q6401
2SK062000L
D6405
D1FL40
R6410
100k
Vf
Vfo
Vf5
TO SC-BOARD (SC41)
TO SC-BOARD (SC42)
FSI
FCL
FCLK
PRO
VF5V
VFO
SU41 (Card Edge)
SU42 (Card Edge)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

12.42. SD-Board Schematic Diagrams



SD-BOARD TNPA2260
DOWN
TO DATA DRIVE
SD1
SD2
SD3
TPSD1
IC6405
AN8447GHK-V
STV7617
C1AB00001070
IC6406
AN8447GHK-V
STV7617
C1AB00001070
IC6407
AN8447GHK-V
STV7617
C1AB00001070
IC6408
AN8447GHK-V
STV7617
C1AB00001070
Vf
Vfo
Vf5
Vf
Vfo
C6423
C6424
C6425
C6426
D6407
D6406
MA2S0560HL
TO SC-BOARD (SC43)
TO SC-BOARD (SC44)
SD43 (Card Edge)
SD44 (Card Edge)
VF5V
VF5V
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

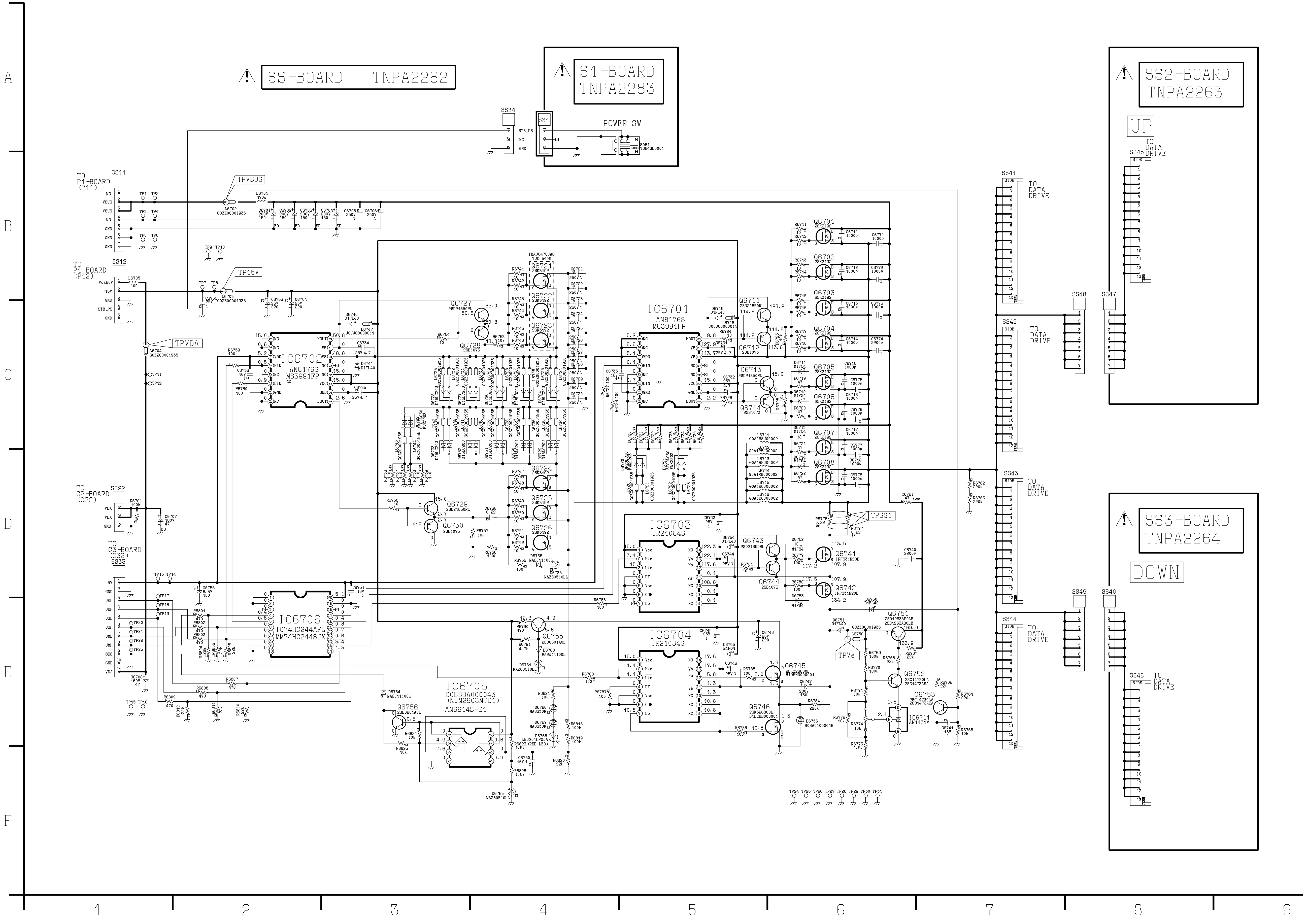
12.43. SS-Board Block Diagrams


SS
P11
SS11
VSUS
P12
SS12
Vda
15V
SS22
C22
C33
SS33
5V
UMH
UML
USH
USL
UEH
UEL
SOS
IC6706
IC6701
S2,S3
CONTROL
IC6702
S1
CONTROL
IC6703
IC6704
15V
H in
H out
L in
L out
LOGIC
Q6711
Q6712
Q6713
Q6714
Q6701
Q6702
Q6703
Q6704
Q6705
Q6706
Q6707
Q6708
S2
S3
S1
Q6727
Q6728
Q6721
Q6722
Q6723
Q6729
Q6730
Q6724
Q6725
Q6726
1/2V0
TPSS1
Q6743
Q6744
Q6741
Q6742
VE
INSERT
Q6755
Q6745
Q6746
VE2
GENERATOR
Q6751
Q6752
Q6753
IC6711
VE GENTATOR
IC6705
Q6756
1/2 V0
SS2
SS3
SS45
SS49
SS47
SS41
SS42
SS43
SS44
SS46
SS48
SS40

IC6703,IC6704 LOGIC TABLE

H in	L	H	L	H
L in	L	L	H	H
H out	L	L	L	H
L out	H	L	L	L

12.44. SS, SS2, SS3 and S1-Board Schematic Diagrams


SS-BOARD TNPA2262
S1-BOARD TNPA2283
POWER SW
SS2-BOARD TNPA2263
UP
SS3-BOARD TNPA2264
DOWN
TO P1-BOARD (P11)
SS11
TPVSUS
TO P1-BOARD (P12)
SS12
TP15V
TPVDA
TO C2-BOARD (C22)
SS22
TO C3-BOARD (C33)
SS33
SS34
IC6702 AN8176S M63991FP
IC6701 AN8176S M63991FP
IC6703 IR21084S
IC6704 IR21084S
IC6706 TC74HC244AFL MM74HC244SJX
IC6705 C0BBBA000043 (NJM2903MTE1) AN6914S-E1
IC6711 AN1431M
Q6701
Q6702
Q6703
Q6704
Q6705
Q6706
Q6707
Q6708
Q6711
Q6712
Q6713
Q6714
Q6721
Q6722
Q6723
Q6724
Q6725
Q6726
Q6727
Q6728
Q6729
Q6730
Q6741
Q6742
Q6743
Q6744
Q6745
Q6746
Q6751
Q6752
Q6753
Q6755
Q6756
TPSS1
TPVe
SS41
SS42
SS43
SS44
SS45
SS46
SS47
SS48
SS49
SS40
TO DATA DRIVE
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9